Directory of Annual Agricultural Research Programme of NARS Institutes

2014-15

Bangladesh Agricultural Research Council

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National Agricultural Research System (NARS)

The National Agricultural Research System (NARS) is composed of BARC and 12 Agricultural Research Institutes (ARIs).

Bangladesh Agricultural Research Council (BARC)

Being the apex body of NARS, BARC has the responsibility to strengthen national agricultural research capability through research planning, coordination, integration and resource allocation. Establish national research priorities, monitor and review the research program of the institutes, contribute to govt. policy formulation, coordinate with donors and share resources with NARS institutes to conduct research in priority areas are some of the mandate of BARC.

Bangladesh Agricultural Research Institute (BARI)

Conduct research to ensure increased and stable production of all crops (except rice, jute, sugarcane and tea) through scientific management of land, water, fertilizers, insect and diseases; develop varieties of crops with resistances to biotic and abiotic stresses; improve fanning systems to optimize production; develop tools and machinery to improve labor productivity; train scientists, extension functionaries, farmers, NGO workers, etc.; collaborate with private sector; publish newsletters, bulletins, and journals; test packages of new technologies.

Bangladesh Rice Research Institute (BRRI)

Conduct research on all aspects of rice to develop high yielding varieties for different ecosystems, develop component technologies for improving productivity of rice-based cropping systems, and transfer rice production technologies through training, workshop, seminar, and publication. Diffusion of technology to farmers through extension agencies.

Bangladesh Jute Research Institute (BJRI)

Conduct Agricultural and Technological research on jute and allied fibers. Agricultural Research: develop short duration high yielding varieties of both white and tossa jute varieties with improved fibers; short duration varieties of kenaf and mesta; agronomic analyses of jute production, prices and markets. Technological Research: identify fiber properties to produce quality products; develop processes and equipment for manufacturing new jute products and improving the quality of conventional jute products; provide technical services to manufacturers with emphasis on establishing new jute industries.

Bangladesh Institute of Nuclear Agriculture (BINA)

To adapt advanced research techniques for the development of a stable and productive agriculture by evolving new crop varieties, technologies to improve management of crops, land and water, as well crop quality, and pest management practices.

Bangladesh Sugarcrop Research Institute (BSRI)

Develop high yielding, high sugar content cane varieties with low fiber contents which are disease and insect resistant for relined sugar and "gur" production; develop early, medium and late maturing varieties to accommodate intensive cropping sequences of major agro-ecological zones; develop improved cultural practices including intcrcropping and relay cropping patterns; develop varieties

Soil Resources Development Institute (SRDI)

Provide soil management advisory services to farmers; assess potentials of land resources through soil survey; assist government and other agencies with planning for agriculture, a forestation, soil conservation, land reclamation, settlements, irrigation, drainage, and flood protection by providing basic soil data, and information and technical support.

Bangladesh Fisheries Research Institute (BFRI)

Conduct and coordinate research on freshwater capture and pond fisheries, brackish water fisheries, and marine fisheries; and assist with development of efficient and economic but sustainable methods for fish production, management, processing and marketing.

Bangladesh Livestock Research Institute (BLRI)

Conduct research to solve problems that restrain the growth and development of livestock production at the farm level, and improve the livestock component of fanning systems.

Bangladesh Forest Research Institute (BFRI)

Develop management practices to increase productivities of national forests and village groves and to convert wastelands and marginal lands to forestry and agroforestry uses; develop technologies for rational utilization of forest products; generate technologies to conserve or restore environment balances through increased stocking densities of both rural and urban forests; transfer technology through extension services and other agencies to end users.

Bangladesh Tea Research Institute (BTRI)

Mandated to conduct research for increased yields and profits by developing improved production technologies and high yielding, high quality tea clones.

Bangladesh Sericulture Research and Training Institute (BSRTI)

Develop disease, drought and water logging resistant high yielding and nutritionally rich mulberry varieties for rearing of silkworms. Develop appropriate technology for quality silkworm egg and silk production through low cost innovative technologies for overall improvement of socio- economic conditions of rural poor and women. Impart training to the extension staff to systematize silk production processes.

Cotton Development Board (CDB)

Conduct research on different aspects of cotton production;develop hybrid and short duration high yielding cotton varieties with desirable fiber characteristics, generation of agronomic management technologies, improving soil fertility by integrated management of organic and inorganic fertilizers, identification of bio-pesticide in controlling cotton insect pest and cotton disease management. Research on stress management to expand cotton

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Foreword

Documentation of research activities and their output, though have many facet benefit, but is not widely practiced as a part of the culture by the scientific community in most cases. It is important as an element of knowledge management and central in undertaking of new research. Among other benefits; continuity of a promising activity and avoidance in repetition of a research work and thus economy in resource use are worth mentioning.

Keeping all these in mind, the Bangladesh Agricultural Research Council has attempted for the first time, to gather and document the annual agricultural research programmes of the 12 National Agricultural Research System (NARS) institutes of Bangladesh. It contains, the research programmes by discipline under different program/projects planned for implementation by the NARS institutes during the fiscal year 2014-15. Pertinent to mention that, the annual research programmes are to be drawn in alignment with the 5-years Master Plan of the organizations; which originates from the set agricultural research priorities by the year 2030 and beyond.

I wish and expect, this document will help the research planners and the scientists to take note of the works planned/done while formulating new research undertaking. Further, availability of all activities in a single document may prompt collaborative research among the NARS institutions in areas of commonality as well.

My highest appreciation and gratitude to the NARS institutes for their support and contribution, without which this publication would not be possible. Particular thanks to Mr. Md. Abeed Hossain Chowdhury, Director (Computer and GIS) and Principal Investigator, Agricultural Technology Information Network (ATIN) project and his colleagues for this new initiative and effort for successful completion of the valuable task. The assistance in compilation and editing provided by Dr. M.A. Quayyum is thankfully acknowledged.

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Dr. Abul Kalam Azad
Executive Chairman, BARC

Dhaka
20 December 2015

C o n t e n t s

BANGLADESH AGRICULTURAL RESEARCH INSTITUTE

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WHEAT RESEARCH CENTRE

Sl No.	Research Title	Objective(s)	Location
Varietal Improvement			
1	Hybridization	Transfer desirable traits from donor parents to the recipient parent with good agronomic background targeting to develop high yield potential, disease resistant variety with wide adaptation	RARS, Jessore Jamalpur RWRC, Rajshahi
2	Confirmation of single and top crosses	• Confirming hybrids derived from crosses between two different parents • Generation of F2 seeds and making top and back crosses utilizing F1 plants	Joydebpur Jessore Jamalpur
3	Germplasm maintenance	• Evaluating lines from different national and international sources • Maintaining promising lines and preserve for future use	Dinajpur
4	Estimation of quality parameters of advanced wheat genotypes	• Characterizing wheat genotypes for different physico-chemical and quality traits • Utilizing the superior genotypes for hybridization as parent	WRC & PHT Division, Joydebpur
5	Bangladesh Wheat Screening Nursery, Set I (BWSN-I)	• Evaluating all selected genotypes/lines from different national and international nurseries for high yield potential • Selecting promising lines for evaluation in preliminary yield trial	Dinajpur, Jessore and Joydebpur
6	Bangladesh Wheat Screening Nursery, Set II (BWSN-II)	• Evaluating all selected genotypes/lines from different national and international nurseries for high yield potential • Selecting promising lines for evaluation in preliminary yield trial	Dinajpur, Jamalpur, and Rajshahi
7	Preliminary Yield Trial, Set-I (PYT-I)	• Evaluating yield potential of the promising lines selected from BWSN under different agro climatic conditions • Selecting promising lines for Advance Yield Trial	Dinajpur, Jamalpur, and Rajshahi
8	Preliminary Yield Trial, Set-II (PYT-II)	• Evaluating yield potential of the promising lines selected from BWSN under different agro climatic conditions • Selecting promising lines for Advance Yield Trial	Dinajpur, Joydebpur and Jessore
9	Advance Yield Trial (AYT)	• Evaluating yield potential of the advance lines under different locations • Selecting promising lines for evaluation in Candidate Variety Demonstration	Dinajpur Joydebpur, Jessore, Jamalpur, Rajshahi
10	Candidate Variety Demonstration (CVD)	• Evaluating performances of the promising advance lines in large plots • Selecting candidate varieties for on farm and on station multi-location testing.	Dinajpur and Joydebpur

Sl No.	Research Title	Objective(s)	Location
11	On-Station Demonstration (OSD)	Demonstrating wheat varieties to the visitors under optimum and late seeding conditions	Dinajpur, Jessore, Joydebpur, Jamalpur, Rajshahi, Rahamatpur and Ishurdi
12	Distinctness, Uniformity and Stability (DUS) Test	• Studying the identifying characters of advance lines before release • Studying the uniformity and stability of the identifying characters • Establishing distinctness of the candidate varieties from the existing varieties with at least one character	Dinajpur, Joydebpur and SCA, Gazipur
13	Adaptive trial with advance wheat lines at MLT sites	• To see the yield of new wheat lines in comparison to the widely grown check variety in different agro-ecological zones. • Evaluate the advance lines by the field evaluation committee of the National Seed Board (NSB)	Dinajpur Rajshahi, Jessore,Comilla Jamalpur, Barisal
Development of Heat Tolerant Wheat Genotypes			
14	2nd Early Heat Tolerance Wheat Screening Nursery (2nd EHTWSN)	• Evaluating selected promising genotypes, lines from different national and international nurseries/trials for early heat tolerance and high yield potential in early seeding • Selecting promising lines for inclusion in preliminary yield trial and/or using as parent	Joydebpur, Rajshahi, Faridpur
15	2nd Early Maturing Wheat Screening Nursery (2nd EMWSN)	• Evaluating wheat genotypes for early maturity • Selecting short duration and high yielding lines for late sown condition.	Joydebpur, Dinajpur and Jessore
Development of Drought Tolerant Wheat Genotypes			
16	2nd Drought Tolerant Yield Trial	• To evaluate new exotic lines against drought under Bangladesh condition. • To identify the appropriate germplasms tolerant to drought stress	Rajshahi
17	Wheat variety selection for drought prone area	To identify the appropriate elite genotypes tolerant to drought stress environment.	Nachol, Porsha, Godagari
18	Screening of wheat genotype for morpho-physiological traits in response to drought tolerance	• To evaluate newly evolved and selected drought tolerant wheat genotypes under Bangladesh condition • To identify the appropriate genotype/s suitable for adaptation in the drought prone areas as well as for future breeding programs	Gazipur
19	Screening of wheat genotype for drought tolerance emphasizing coleoptiles length	• To identify the appropriate wheat germplasm having long coleoptiles and semi-dwarfing stature. • To evaluate wheat genotypes against drought under Bangladesh condition. • To identify appropriate screening technique for drought tolerance in wheat.	Dinajpur

Sl No.	Research Title	Objective(s)	Location
Molecular and Double Haploid breeding			
20	Molecular characterization of BARI released wheat varieties through SSR marker	• Molecular characterization of Bangladeshi wheat varieties. • To find out the polymorphism that exists in wheat varieties released by BARI.	Gazipur
Molecular and Doubled Haploid (DH) breeding			
21	Production of wheat double haploids	• To develop immediate homozygosity of segregated lines. • To reduce breeding time for variety release. • To improve efficacy and efficiency in screening for resistance.	RWRC research field, BTL lab & green house, BARI,
22	Collaborative Studies With International Organizations	• Germplasm exchange programme between WRC and international organizations is established as a part of collaborative study. • The materials are mainly received from CIMMYT, Mexico; Nepal and other countries	Dinajpur, Rajshahi
Participatory Variety Selection (PVS) Trial			
23	PVS: Mother and baby trials and informal seed dissemination	• Demonstrating the performance of the rust resistant promising advanced lines and new varieties to the farmers under their own management conditions. • Providing scope to the farmers for selecting the varieties/lines suitable for their own socio-economic conditions. • Exploit G x E interaction by growing genotypes in diverse production environments to increase selection efficiency • Enhancing seed production and dissemination at farmers' level.	Dinajpur, Jessore, Jamalpur (Char areas), Rajshahi (Barind areas), Faridpur & Rangpur (IAPP North Region)
24	Participatory Variety Screening under stress environment	• Participatory screening wheat genotypes for unfavourable ecosystem: heat, salinity, drought, etc. • Providing scope to the farmers for selecting the varieties/lines suitable for their own socio-economic conditions.	Patuakhali, Tangail (Char areas), Rajshahi (Barind areas)
Development of Durum and Triticale Variety			
25	Durum Yield Trial (DYT)	• Selection of promising durum lines for higher grain yield • Advancing promising durum lines for further improvement	Dinajpur and Ishurdi
26	Adaptive trial with advance Durum lines at MLT Sites	To evaluate performances of durum lines in comparison to checks in different agro-ecological zones.	Experimental sites
27	Triticale Yield Trial (TYT)	• To identify genotypes with good adaptation • Selecting promising triticale lines for both forage and grain	Dinajpur

Sl No.	Research Title	Objective(s)	Location
Variety Maintenance and Breeder Seed Production			
28	Maintenance of first and second year lines of recommended varieties	• To maintain purity of nucleus seeds of newly released varieties • To produce pure seeds for breeder seed production	Dinajpur
Breeder Seed Production of Recommended Wheat Varieties			
29		To produce breeder seed for BADC and private enterprises.	Dinajpur, Rajshahi& Thakurgaon
30	Multiplication of pre-released wheat varieties	Produce good quality seeds for using in up-scaling multiply seeds of pre-release varieties for quick dissemination soon after release quick replacement of old varieties	Dinajpur Joydebpur
31	Seed Multiplication of new wheat varieties	• produce good quality seeds for using in up-scaling • multiply seeds of quick dissemination to the farmers • quick replacement of old varieties	Dinajpur Joydebpur
32	Seed increase of recommended varieties and the lines included in the nurseries and trials of Wheat, Triticale and Durum	To produce good quality seeds for use in the nurseries/ yield trials for next year experiments and demonstrations.	Dinajpur, Debigonj Thakurgaon, Rajbari, Rajshahi Ishurdi, Joydebpur Jessore, Jamalpur
Bio-Fortification in Wheat			
33	Zinc-enrich wheat yield trial	To evaluate the potentiality of developing bio-fortified wheat line(s) & to identify promising genotypes with higher levels of Zinc content	Dinajpur, Joydebpur
Development of Salinity Tolerant Variety			
34	Screening of wheat genotypes against salinity under laboratory condition	• Screening wheat genotypes against salinity under laboratory condition • Identify and select saline tolerant genotypes for field testing in coastal region of Bangladesh.	Joydebpur
35	Wheat Variety/Line screening against salinity under field condition	• Select the suitable wheat varieties/lines for saline areas • Identify and select sources of resistance.	Noakhali and Patuakhali
Development of Varieties Suitable for RCT			
36	Genotype x tillage interaction for wheat genotypes in Rice-wheat cropping system	• Exploit genotype x tillage interaction for developing varieties for resource conservation agriculture. • Insulate the varieties for biotic and abiotic stress encountered in wheat based cropping system • Develop wheat varieties suppressing weeds via changed plant morphology and analysis growth pattern of selected lines.	Rajshahi and Dinajpur

Sl No.	Research Title	Objective(s)	Location
Crop and Soil Management			
37	Long-term bed planting trial for improving crops and soils productivity in Rice-Wheat-Mungbean cropping pattern	• Increasing cropping intensity and soil fertility • Determining N-use efficiency • Creating a suitable cropping pattern within the rice-wheat system, and • Study the profitability of this pattern.	RWRC, Shyampur, Rajshahi
38	Effect of bed planting and residue management on productivity of Wheat-Maize-Rice cropping pattern	• Examining the productivity of wheat-maize-rice cropping pattern under different CA practices. • Changing in soil properties due to shifting from conventional to CA practices.	RWRC, Shyampur, Rajshahi
39	Intercropping mustard with wheat in bed planting under Rice-Wheat system	• Finding out suitable mustard population for intercropping with wheat in bed planting system, • Increasing total productivity and enhance farmers income.	Jessore
40	Relay cropping of wheat with T. Aman under Rice-Wheat system	Increasing productivity of wheat andEnsuring timely sowing of wheat	Jessore
41	Effect of sowing depth on wheat	Examining the effect of sowing depth on emergence, tillering ability and yield in wheat.	Dinajpur
Physiological Studies			
42	Physiological study of wheat under water deficit conditions	• Screening the wheat genotypes against to water deficit stress condition • Observing the genotypic variation under water deficit condition.	Dinajpur
43	Growth and yield of recently released wheat genotypes under raised bed system	• To select the best genotype(s) under raised bed system. • Determining the growth physiology of wheat genotypes under bed planting system.	RWRC, Shyampur, Rajshahi
44	Use of DSSAT models for climate change impact assessment of wheat in Bangladesh: Calibration and validation by CERES-wheat model	• Knowing the climate change impact on wheat, • Identifying location specific wheat variety, • Knowing phenological variation in relation with growth, yield and yield contributing characters.	Dinajpur RWRC, Rajshahi and RARS, Rahamatpur, Barishal
45	Development of yield model of recently released wheat varieties under late sown heat stress condition	• To develop a yield model of wheat varieties under late sown heat stress condition. • To observe the effect of temperature on growth, phenology and yield of wheat under late sown heat stress condition	Joydebpur
Rice-Wheat System			
46	Response of K fertilizer on yield of wheat varieties in Char land area	• Finding specific K doses for wheat varieties in char land area • Finding suitable wheat varieties in char land areas in Jamalpur region	Char land of Jamalpur and Ishurdi
47	On-farm evaluation of wheat varieties in	• Introducing wheat in new area of Sherpur district,	Jhinaigati and Nalitabari,

Sl No.	Research Title	Objective(s)	Location
	Sherpur district under AEZ 22	• Utilizing the fallow land with wheat, • Evaluating the new wheat varieties in drought prone area with no or one irrigation	Sherpur
48	Validation of wheat based cropping patterns in Jamalpur region	• Identifying the profitable cropping pattern, • Increasing cropping intensity, • Increase soil health.	RARS, Jamalpur
Soil Management			
49	Direct and residual effects of applied organic manures on yield and soil properties in a Wheat-Fallow-Rice cropping pattern	• Increasing nutrient accumulation in soil to maintain soil fertility and productivity • Improving productivity in wheat-rice cropping system • Evaluating the physico-chemical change in soil	WRC, Dinajpur
50	Effect of crop residues on yield and soil properties in a Wheat-Fallow-Rice cropping pattern	• Study the effect crop residue incorporation in increasing yield. • Sustaining soil fertility and productivity.	WRC, Dinajpur
51	Effect of bio-slurry in Wheat-Mungbean-T. aman cropping pattern	• Finding the optimum rate of bio-slurry for improving soil fertility and crop yield. • Sustaining soil fertility and productivity.	WRC, Dinajpur
52	Effect of different doses of vermicompost in combination with chemical fertilizers in a Potato-Wheat-Mungbean-T. aman cropping system	• Evaluating the impact of different doses of vermicompost with chemical fertilizers on crop growth and yield.	Nashipur, Dinajpur
53	Integrated soil and nutrient management to improve the productivity of wheat-maize- rice cropping system	• Promote the intervention of maize in wheat based cropping system to intensify and improve the cropping system. • Determination of appropriate soil and nutrient management strategies to increase and sustain the productivity of the system. • Contribute to food and feed security of the country.	Joydebpur
54	Effect of conservation agricultural practices on soil property and productivity in wheat-maize-rice cropping system	• Evaluating the performance of component crops (rice, wheat and maize) and their profitability under conventional and conservation practices. • Introducing of conservation agricultural practices in cereal cropping system to improve system productivity and soil fertility. • Study the changes in physical, chemical and biological properties of soil due to shifting from conventional to conservation practice.	RWRC, Joydebpur
55	Evaluation of nutrient use efficiency of wheat genotypes through nutrient addition trial	• Study the crop response to individual fertilizer elements. • Partitioning the contribution of fertilizer elements on wheat yield. • Identified the wheat genotypes efficient in	WRC, Dinajpur

Sl No.	Research Title	Objective(s)	Location
		various nutrient elements • Generate information on physiological disorders of wheat under nutrient stress condition	
56	Water requirement of wheat under different tillage options	• To observe the combined effect of water regimes and tillage practices on yield • To find out the required water quantity in different tillage options for wheat	WRC , Dinajpur
57	Uptake and efficiency of different levels of nutrient management in wheat- maize- rice cropping pattern	• To promote maize in wheat based cropping pattern and improve the cropping system • To sustain soil fertility and productivity. • To increase crop yields	WRC, Dinajpur
58	Study the yield potential of promising wheat genotypes maximizing fertilizer application	• To investigate the varietal/genotypic potentiality in producing maximum yield under different soil and environmental conditions • To estimate the nutrient use efficiency of wheat genotypes and • Support wheat breeding program in selecting the genotype with relatively higher yield potential.	RWRC, Joydebpur, WRC, Dinajpur and RWRC, Rajshahi
Disease Management			
59	Evaluation of wheat germplasm against Bipolaris leaf blight under field condition	To find out resistant/tolerant lines of wheat against Bipolaris leaf blight under natural disease development.	WRC Dinajpur, Joydebpur and Jessore.
60	Evaluation of wheat genotypes for resistance to Bipolaris leaf blight under inoculated condition	To evaluate adult plant resistance of wheat genotypes against Bipolaris leaf blight under induced disease pressure.	WRC Dinajpur.
61	Evaluation of wheat germplasm against leaf rust under field condition	To find out sources of resistance to leaf rust disease.	WRC Dinajpur, Joydebpur, Jamalpur and Jessore.
62	Evaluation of wheat genotypes for resistance to leaf rust under inoculated condition	To evaluate adult plant resistance of wheat genotypes against leaf rust under induced disease pressure.	WRC Dinajpur.
63	Assessment of yield losses due to leaf rust at different growth stages of wheat	To estimate losses in yield due to leaf rust at different growth stages of wheat.	WRC, Dinajpur
64	Efficacy of fungicides in controlling Bipolaris leaf blight of wheat	To evaluate the efficacy of some new fungicides in controlling BpLB of wheat.	WRC, Dinajpur
65	Efficacy of fungicides in controlling leaf rust of wheat	To evaluate the efficacy of some new fungicides in controlling leaf rust of wheat.	WRC, Dinajpur

Sl No.	Research Title	Objective(s)	Location
66	Effect of different tillage and fertilizer management options and planting time on the development of Bipolaris leaf blight of wheat	To find out the effects different tillage and fertilizer management options and planting time on the severity of BpLB of wheat.	WRC, Dinajpur
67	Climate change adaptation of wheat genotypes for tolerance to terminal heat stress and Bipolaris leaf blight	• To assess the individual and combined effects of terminal heat stress and Bipolaris leaf blight on selected wheat genotypes. • To identify genotypes having tolerance to terminal heat stress and Bipolaris leaf blight.	WRC, Dinajpur
68	Monitoring and evaluation in international wheat disease nurseries	• To identify diseases, track pathogens and assess disease severity. • To identify and select sources of resistance. • To collaborate with the international partners developing global disease management strategies.	WRC Dinajpur, Joydebpur and Jessore.
69	Surveillance of wheat rusts in Bangladesh	• To identify rust diseases, track pathogens and assess disease severity in farmers' fields. • To improve rust resistance research in Bangladesh. • To collaborate with the international partners developing global rust management strategies.	WRC Dinajpur, Joydebpur, Jessore and Ishurdi.
Insect Management			
70	Assessment of present status of insect pests and their natural enemies in wheat field	To document present status of insect pests' infestation and their natural enemies in wheat.	WRC, Dinajpur; RARS, Jamalpur; RARS, Jessore
71	Monitoring and observation of insect pests of wheat under different sowing dates	To determine severity of insect pests' infestation in wheat under different sowing dates	WRC, Dinajpur
72	Yield loss assessment of wheat due to aphid infestation	To estimate losses in grain weight and yield of wheat due to aphid infestation	WRC, Dinajpur
73	Observation of stored grain insects status in wheat seeds under farmers' storage condition	• To identify stored grain insect pests attacking wheat seeds. • To determine per cent infested seeds in different storage conditions. • To document farmers' perception regarding insect pests of wheat grains.	Farmers' houses at Dinajpur and Thakurgaon
Farm Machinery and Process Engineering			
74	Fine tuning of power tiller operated bed planter	• Evaluating the bed planter performance for better crop establishment both on station and farmers field • Comparing the economic performance of the planter with conventional method	RWRC, Rajshahi and Dinajpur area

Sl No.	Research Title	Objective(s)	Location
75	Adoption of power tiller operated seeder (PTOS) in the Rice-Wheat cropping system	• Demonstrating power tiller operated seeder for wheat, maize, pulses, sesame and rice establishment • Comparing yield and economic benefit over conventional method of planting	Rajshahi, Dinajpur
76	On farm validation of power tiller operated zero tillage planter for up land crops	• Evaluating the performance of zero tillage planter for wheat , maize and pulses cultivation with utilization of residual soil moisture • Comparing the yield and cost performance over conventional method	Barind tract and Chargat of Rajshahi
77	Design and development of a manually operated adjustable multi-row seeder for up land crops	• To fabricate a low cost manually operated multi-row seeder for up land crops • To test the seeder performances both on station and the farmers' field • To compare the cost of seeding with traditional broadcasting method	WRC, Dinajpur
78	Design and development of a manually operated adjustable multi-row weeder	• To fabricate a low cost manually operated multi-row weeder for up land crops • To test the weeder performances both on station and the farmers' field • To compare the cost of weeding with traditional methods	WRC, Dinajpur
79	Evaluation of new wheat genotypes under different tillage methods using participatory technology selection approach	• Identify the suitable tillage methods for wheat • Evaluate varietal performance under different tillage methods • Determine profitability of tillage methods	WRC, Dinajpur
80	Technical support to manufacturers for machinery development and fine tuning of existing machines	• Providing machinery functional parts to manufacturers for better understanding • Build up manufacturing skill of technical staff for large scale machinery production	Manufacturer from Rajshahi, Dinajpur, Jamalpur and Bogra
Technology Transfer			
81	Variety demonstration wheat	• The objectives of new variety demonstration is: • evaluating new varieties by the farmers comparing with widely grown one • preserving and disseminate seeds of farmers'-preferred varieties through farmers to farmers and • increasing varietal diversity	Rangpur, Rajshahi, Jessore, Mymensingh, Dhaka, Comilla, Sylhet and Barishal.
82	Variety demonstration of dual purpose triticale	• To evaluate the new triticale varieties by the farmers comparing with their widely grown one • To preserve and disseminate seeds of farmers'-preferred varieties through farmers to farmers	Dinajpur Thakurgaon Panchagarh Nilphamari Kurigram, Rangpur Gaibandha Lalmonirhat Joypurhat, Natore (lalpur)

Sl No.	Research Title	Objective(s)	Location
83	Yield maximization demonstration	• To show the yield potential of the new varieties using recommended technologies • To show farmers and related others the fact that, yield gap between research stations and farmers fields can be reduced remarkably by cultivating new varieties following WRC recommended technologies and • To preserve and rapid disseminate seeds of new varieties by farmers	Dinajpur, Rajshahi Jessore, Jamalpur Tangail, Barishal Faridpur, Comilla
84	Up scaling of new wheat varieties	To show the performance of the new wheat varieties to the farmers and disseminate the varieties to the varieties.	Rangpur, Nilphamari, Kurigram and Lalmonirhat
85	Block demonstration of new wheat varieties	To show the performance of the new wheat varieties to the farmers and disseminate the varieties to the varieties.	Rangpur, Nilphamari, Kurigram and Lalmonirhat
86	Block demonstration of acid soil management	To show the performance of the new wheat varieties to the farmers and disseminate the varieties to the varieties.	Rangpur, Nilphamari, Kurigram and Lalmonirhat
87	Up scaling of power tiller operated seeder (PTOS) and bed planter	• Increase cropping intensity, sustain crop yield and enhance farmer's income through the use of developed power tiller operated seeder.	Rangpur, Nilphamari, Kurigram and Lalmonirhat
88	Up scaling of bed planting in Rice-Wheat-Mungbean cropping pattern	• To know the performances of bed planting over conventional • To increase cropping intensity, soil fertility and productivity • To identify cropping system that will be intensive within R-W. • To study the profitability of this pattern	Rajshahi, Natore, Nawabgonj and Pabna
89	Up scaling PTOS for improving productivity and sustainability in the drought prone (Barind) areas	• Select suitable genotypes suitable for PTOS tillage systems at Barind Area.	High Barind Tract at Rajshahi
90	Up-scaling of new wheat varieties in stress environment	• Evaluating the new varieties by the farmers comparing with the existing variety • Preserving and disseminate seeds of farmers'-preferred varieties through farmers to farmers and • Increasing varietal diversity	Tangail, Faridpur Barisal, Gopalganj Madaripur, Shariatpur, Barisal Patuakhali, Bhola, Comilla, Noakhali Rajshahi

Sl No.	Research Title	Objective(s)	Location
Training, Workshop and Field Days			
91	Training to demonstration and PVS farmers and related personnel	The objective of the training is to teach variety demonstration and PVS farmers and related personnel (one SAAO for two demonstrations and maximum two DAE Officer per batch as observer) about the systems of conducting demonstrations, data recording and sending, and wheat production and seed preservation technologies.	Rangpur, Rajshahi, Mymensingh Jessore, Dhaka,Comilla, Sylhet, Chitagong and Barishal
92	Training of trainers for BARI, DAE, BADC and NGO personnel on wheat production and seed preservation	• Update the knowledge and skill on wheat production and seed preservation • Acquaint them with the new varieties and their distinguishing characteristics • Get the feed back about the causes of wheat area reduction and their provable solutions.	WRC, Dinajpur RWRC, Rajshahi RARS, Jessore RARS, Jamalpur RWRC, Joydebpur
93	Training of trainers on PTOS, wheat thresher and reaper	• To train the machine owners, technicians, DAE personnel on the operation and maintenance of PTOS, Threshers and Reapers. • To introduce with PTOS, Threshers, Reaper • To increase the technical skill on the maintainer and operator	RWRC, Rajshahi
94	Field days and monitoring of on-farm and on-station research activities	• Showing and explain the performance of the new varieties and • Showing the impact of recommended technologies use in wheat yield. • Monitoring of on-station research activities	Rangpur, Rajshahi Jessore, Mymensingh, Dhaka, Comilla, Barishal & Sylhet Region

HORTICULTURE RESEARCH CENTRE

Sl No.	Research Title	Objectiv(s)	Location
Vegetable Division(Varietal Development)			
95	Regional yield trial of f_1s of tomato for winter	To evaluate the performance of winter hybrid tomato lines	RARS, Ishwardi
96	Regional yield trial of advanced lines of winter tomato	To performance of three tomato lines viz., AVTOV1007, AVTOV1008 and AVTOV1010 with BARI Tomato-14	RARS, Ishwardi
97	Regional yield trial of selected beta carotene rich tomato lines	To evaluate the performance of three beta carotene rich tomato lines	RARS, Ishwardi
98	Regional yield trial of selected semi-indeterminate tomato lines	Yield potentiality of selected semi-indeterminate tomato lines at different agro-ecological regions of Bangladesh	RARS, Ishwardi
99	Regional yield trial of tomato lines for processing	Regional yield trial of selected AVRDC supplied processing tomato lines to develop new processing tomato variety for Bangladesh	RARS, Ishwardi
100	Regional yield trial of t_y gene inserted tomato lines	Develop a new tomato variety and inbred as well	RARS, Ishwardi

Sl No.	Research Title	Objective(s)	Location
101	Regional yield trial of t_y gene inserted tomato lines (Cherry type)	Develop a new tomato variety and inbred as well	RARS, Ishwardi
102	Regional yield trial of egg plant hybrids	Assess the parents for better hybrids	RARS, Ishwardi
103	Regional yield trial of okra lines	Yield performance and tolerant to yellow vein mosaic virus at different locations of Bangladesh	RARS, Ishwardi
104	Regional yield trial of winter bottle gourd lines	To evaluate the bottle gourd lines in respect of yield and quality at different agro-ecological zones	RARS, Ishwardi
105	Regional yield trial of advanced spinach lines	To develop a new variety of spinach	RARS, Ishwardi
106	Regional yield trial of hybrid pointed gourd lines	The performance of hybrids pointed gourd at different locations	RARS, Ishwardi
107	Collection and evaluation of eggplant germplasm	Thirty five eggplant germplasm to develop adapted high yielding eggplant varieties	RARS, Ishwardi
108	Collection and evaluation of garden pea germplasm	The performance of yield and yield contributing characters of garden pea germplasm	RARS, Ishwardi
109	Regional yield trial of OP broccoli line	• To evaluate the performance of open pollinated broccoli line • To release tropical broccoli variety having curd as well as seed production potentiality	On Station
110	Regional yield trial of French bean	To select suitable lines for release as a variety	On Station
111	Regional yield trial of tomato lines for processing	Assessing the yield potentiality of processing type tomato lines at different agro ecological zones of Bangladesh	On Station
112	Regional yield trial of Ty gene inserted tomato lines for yield and diseases resistance	• Assessing the yield potentiality of tomato lines at different agro ecological zones of Bangladesh. • Developing OP tomato variety and inbred lines for tomato's hybrid variety development	On Station
113	Regional yield trial of selected semi indeterminate tomato lines	Determining yield potentiality and pest and diseases reactions of selected semi-indeterminate tomato lines at different agro ecological zones of Bangladesh	On Station
114	Collection and evaluation of drumstick (moringa) germplasm	To select a suitable germplasm which will be released as a variety	On Station
115	Breeder seed production of some selected vegetables	To produce breeder seed production of some seleted vegetables	On Station
116	Regional yield trial of bold seeded hyacinth bean	Select best bold seeded line (s)	RARS

Sl No.	Research Title	Objective(s)	Location
117	Collection and evaluation of bold seeded country bean	Select best bold seeded line (s)	RARS
118	Regional yield trial of selected beta carotene rich tomato lines	• Assessing the yield potentiality of beta carotene rich tomato lines at different ago ecological zones of Bangladesh; and • Developing high yielding, diseases and pest/tolerant beta carotene rich tomato variety	RARS
119	Regional yield trial of selected semi indeterminate tomato lines	• Determining yield potentiality and pest and diseases reactions of selected semi-indeterminate tomato lines different ago ecological zones of Bangladesh; and • Developing of high yielding and prolong time harvestable tomato variety	RARS
120	Regional yield trial of early cauliflower lines	Undertaken to see the potentiality of the cauliflower lines at early season of winter at different agro- ecological zones of Bangladesh	RARS
121	Regional yield trial of Ty gene inserted tomato lines for yield and diseases resistance	• Assessing the yield potentiality of tomato line different ago ecological zones of Bangladesh; and • Developing OP tomato variety and inbred lines for tomato's hybrid variety development	RARS
122	Regional yield trial of Ty gene inserted tomato lines 8for yield and diseases resistance (cherry)	• Assessing the yield potentiality of tomato lines at different agro ecological zones of bd and • Developing OP cherry tomato variety and inbred lines for tomato's hybrid variety development	RARS
123	Regional yield trial of winter tomato lines for processing	• Assessing the yield potentiality of processing type tomato lines at different agro ecological zones of Bangladesh and • Developing processing type of tomato variety for Bangladesh	RARS
Fruits Division (Varietal Development)			
124	*In situ* evaluation of off-season jackfruit germplasm	• To study the performance of the lines • To identify suitable germplasm for higher yield and quality	On Station
125	Clonal selection of mango cv. Harivanga	• To select the superior germplasm for commercial cultivation • To develop a new mango variety	On Station
126	*In situ* evaluation of selected coloured mango germplasm	• To select the superior. Coloured mango germplasm(s) for releasing as a variety	On Station
127	*In situ* evaluation of selected local elite mango germplasm	• To select the superior germplasm(s) for releasing as a variety for commercial cultivation	On Station

Sl No.	Research Title	Objective(s)	Location
128	Collection and evaluation of local pummelo germplasm	• To select superior pummelo lines for releasing as variety • To conserve genetic resources	On Station
129	Evaluation of longan germplasm	• To select suitable variety of longan • To conserve fruit genetic resources	On Station
130	Collection and evaluation of bel, wood apple, pomegranate, custard apple, bullock's heart and burmese grape germplasm	• To select superior lines • To conserve fruit genetic resources	On Station
131	Evaluation of bel germplasm	• To select superior lines • To conserve fruit genetic resources	On Station
132	Evaluation of wood apple germplasm	• To select superior lines for releasing a variety • To conserve germplasm	On Station
133	Evaluation of lotkan germplasm	To evaluate the physical properties of different Burmese grape genotypes.	RARS
Pest Management			
134	Development of Effective Management Package Against Thrips, thrips palmi in Brinjal	To develop an effective management option against thrips infesting brinjal	Gazipur
135	Screening of Country Bean Lines Against Pod Borer	• To identify the resistant country bean variety (ies) to legume pod borer and aphid • To fit the resistant variety in the IPM package for managing those pests	Gazipur
136	Relative Susceptibility of Six Country Bean Variety Against Aphids and Pod Borer	• To identify the resistant country bean variety (ies) to legume pod borer and aphid • To fit the resistant variety in the IPM package for managing those pests	Gazipur
137	Relative Susceptibility of BARI Released Tomato Varieties to Fruit Borer, Leaf Miner and White fly	• To identify the resistant tomato variety (ies) to fruit borer, leaf miner and whitefly • To fit the resistant variety in the IPM package for managing those pests	Gazipur
138	Estimation of Damage Severity on Different Crops in Hydroponic Culture	To document insect pests and natural enemies in hydroponic culture	Gazipur
Soil Management			
139	Effect of molybdenum and method of application on seed production of cauliflower	The optimum dose for maximizing the seed yield of cauliflower under Bangladesh agro-climatic condition	RARS, Ishwardi
140	Influence of integrated fertilizer application on the yield of banana	To standardize of organic and inorganic fertilizer as well as improve yield and quality of banana in Bangladesh	RARS

Sl No.	Research Title	Objective(s)	Location
141	Effect of NPKS fertilizer management on the growth and yield of carrot	• To find out the proper combination of fertilizer nutrients to increase the productivity of carrot • To find out the effective of individual nutrient for maximum the yield of carrot	On Station
Floriculture Division (Varietal Improvement)			
142	Collection and evaluation of chrysanthemum genotypes	Finding out of germplasm in terms of yield and quality	Joydebpur, Jessore & Burirhat
143	Collection, evaluation and maintenance of dahlia	Maintaining the genetic purity	Joydebpur & Jessore
144	Evaluation of gerbera genotypes	Finding out of germplasm in terms of yield and quality	HRC, Gazipur
145	Evaluation of anthurium genotypes	• Monitoring of vase life and yield parameters • Maintaining the genetic purity	HRC, Gazipur
146	Evaluation of aster genotypes	• Observing the performance of advanced lines • Finding out of germplasm in terms of yield and quality	Joydebpur & Jessore
147	Collection, evaluation and maintenance of lilium	• To collect the different species of lilium available in Bangladesh • To conserve the collected germplasm for future research	Joydebpur
148	Collection, evaluation and maintenance of cactus	Maintaining the genetic purity	Joydebpur
149	Collection and maintenance of rose genotypes	• Finding out the suitable germplasm for cutflower and pot plant • Monitoring of vase life and yield parameters	Joydebpur
150	Collection, evaluation and maintenance of heliconia	• To collect the different species of lilium available in Bangladesh • To conserve the collected germplasm for future research	Joydebpur
151	Collection, evaluation and maintenance of lily	• Monitoring of vase life and yield parameters • Finding out of germplasm in terms of yield and quality	Joydebpur
152	Collection and characterization of locally available gladiolus genotypes	Finding out of germplasm in terms of yield and quality	Jessore
153	Studies on variability's of local dendrobium orchids	• Finding out the suitable germplasm for cut flower and pot plant • Maintaining the genetic purity	Joydebpur
154	Collection and maintenance of china rose	Collection and conservation of collected germplasm to maintain genetic purity	Joydebpur
155	Collection, evaluation and maintenance of euphorbia	To find out suitable germplasm for interior decoration	Joydebpur

Sl No.	Research Title	Objective(s)	Location
156	Collection of house plants	• Monitoring of shading and non shading loving plant • Maintaining the genetic purity	Joydebpur and Jessore
157	Performance of exotic ornamental gourds lines	• To evaluate the performance of different species of ornamental cucurbits • To conserve the collected germplasm for future research	Joydebpur, Burrirhat, Thakargaon
158	Performance of some promising gladiolus genotypes for flower and corm production	• Finding out of superior genotype(s) suitable for cut flower and corm production • Observing disease and insect reaction	Joydebpur and Jessore
159	Hybridization in adenium flower	To develop new varieties	Joydebpur and Jessore
160	Hybridization in lily flower	To develop new varieties	Joydebpur and Jessore
161	Induction of variability through gamma radiation in gladiolus	• Ascertaining appropriate variation caused by gamma radiation • Studying the radio sensitivity of several genotypes of gladiolus	BINA, Mymensingh and BARI, Joydebpur
162	Induction of variability through gamma radiation in tuberose	• To ascertain the appropriate variation caused by gamma radiation • To increase the yield of tuberose flowers and bulb	BINA, Mymensingh and BARI, Joydebpur
Propagation			
163	Influence of different concentration of auxin on propagation of BARI Marigold-1	To find out the suitable concentration of auxin as to propagateBARI Marigold-1	Joydebpur
Cultural Management			
164	Effect of varieties and disbudding on the quality cut flower production of chrysanthemum	• To find out the suitable varieties for Chrysanthemum cut flower production. • To ascertain the optimum number of bloom per plant for Chrysanthemum cut flower production	Joydebpur
165	Effect of corm size and boron on growth and flowering of gladiolus	• To find out suitable varieties on maximum growth and production of flowers and corms • To standardize the optimum concentration of boron to obtain quality flower production and vase prolongation	Joydebpur
166	Cultivation of gerbera under protective condition	To produce the quality flower year round	Joydebpur
167	Effect of planting dates of cormel on the production of gladiolus corm	To find out the suitable planting time of cormel for best gladiolus corm production	Joydebpur
168	Influence of maturity stages on seed quality of china aster	To find out the optimum maturity stage on seed yield and quality of aster	Joydebpur

Sl No.	Research Title	Objective(s)	Location
Physiological Studies			
169	Effect of different GA_3 concentration and frequency on growth, flowering and yield of button flower	To find out the best concentration of GA_3 and frequency on higher yield and quality in button flower	Joydebpur
170	Effect of growth regulators on growth, flowering and corm production of gladiolus	• To find out the optimum concentration of suitable growth regulators • To break the dormancy and higher yield of gladiolus	Joydebpur
Disease Management			
171	Effect of organic amendments and bio-control agent on flowering and corm production of gladiolus	▪ Standardization the nutrient for better growth and yield • Reducing disease and insect reaction • Increasing shelf life	Joydebpur
172	Effect of organic amendments on soil borne diseases of gerbera	To find out the suitable organic amendment in controlling soil borne diseases of gladiolus	Joydebpur, Jessore
Hydroponic Culture			
173	Standardization of EC in nutrient solution on yield of marigold	• Finding out the optimum Electrical Conductivity (EC) for marigold flowering • Determining the suitable variety for quality flower production of marigold	Joydebpur
Interior Decoration			
174	Development of floral arrangement	To develop attractive floral arrangement through matching and contrasting of different flowers	Joydebpur
Technology Transfer			
175	Adaptive trial of gladiolus varieties at farmers field	To evaluate the performance of the varieties in farmer's field	Joydebpur, Bogra, Rangpur, Rajshahi, Jessore
176	Breeder's seed / propagule production of flower crops	• Producing breeder propagules of different flower crops for distribution among the growers and nurserymen • Maintaining genetic purity	Joydebpur, Jessore, Rangpur
Cultural Management (Fruits)			
177	Split application of fertilizer on grafted jackfruit plant	To find out the appropriate fertilizer dose and time of application for young grafted jackfruit plants	Gazipur
178	Effect of fertilizer on flower and fruit drop in mango	To find out the appropriate fertilizer dose in order to reduce severe flower and fruit dropping as well as increasing yield and quality in mango	Gazipur
179	Organic production of mango	To produce quality organic mango in Bangladesh	Gazipur

Sl No.	Research Title	Objective(s)	Location
180	Effect of fruit bagging on different mango varieties grown at chapainawanganj	To control mango pests and diseases	Chapai Nawabganj
181	Optimization of maturity indices of mango germplasm	To optimize the maturity indices of BARI released and commercial mango varieties	Chapai Nawabganj
182	Effects of fertilizers on internal breakdown of BARI Aam-3	To find out the effect of fertilizers on internal breakdown of BARI Aam-3	Chapai Nawabganj
183	Effect of irrigation and mulching on water use efficiency in banana	To find out the optimum irrigation for banana as well as to increase the water use efficiency of banana	Gazipur
184	Effect of NPK doses on the growth and yield of banana var. BARI Kola-3 in hill valley	To determine proper fertilizer doses for specific banana variety i.e., BARI Kola-3	Rangamati (Raikhali)
185	Influence of integrated fertilizer application on the yield of banana	To standardize of organic and inorganic fertilizer as well as improve yield and quality of banana	Chittagong (Hathazari)
186	Effect of different doses of herbicide Paraquat 24% sl (Tabara 20 sl) to control weed on banana field	To find out the optimum dose of herbicide to control weed in banana field	Gazipur
187	Study on the pollen viability of litchi during preservation	To study the pollen viability of litchi during storage	Gazipur
188	Effects of bagging on the harvesting period of litchi	To investigate the effects of bagging on harvesting time, fruit development and quality of litchi	Gazipur
189	Integrated plant nutrient system for mandarin production	To find out the appropriate integrated plant nutrient system for mandarin production	Sylhet (Jaintiapur)
190	Effect of split applicatrion of fertilizer on growth, yield and quality of BARI Malta-1	To find out a judicious fertilizer management system which can help to improve crop growth as well as fruit quality	Narsingdi (Shibpur)
191	Effects of gibberellin on seedlessness of grape	To improve sweetness of grape and to produce seedless grape variety	Narsingdi (Shibpur)
192	Influence of planting time on growth and yield of strawberry in Narsingdi region	To investigate the effect of planting time on the growth, yield and fruit quality of selected strawberry cultivars	Narsingdi (Shibpur)
Disease Management			
193	Survey of floral malformation of mango in major mango growing regions of Bangladesh	To assess the prevalence and severity of mango floral malformation	Chapai Nawabganj

Sl No.	Research Title	Objective(s)	Location
194	Integrated management of post harvest anthracnose and stem-end rot of mango	To evaluate the effect of different treatments against post-harvest anthracnose and stem-end rot of mango fruits	Chapai Nawabganj
195	Incidence of mango scab disease and its management	To find out the reaction of mango varieties against the disease and to find out the suitable fungicide to control the disease	Chapai Nawabganj
196	Efficacy of new fungicides in controlling anthracnose of mango fruits	To test the efficacy of new fungicides against post-harvest anthracnose of mango fruits	Chapai Nawabganj
197	Survey and identification of causal pathogen of black spot of litchi at Rajshahi region	To identify the causal organisms and to know the incidence of diseases for giveing suggestions to the farmers for their effective management	Rajshshi and Ishurdi (Pabna)
198	Efficacy of fungicides and botanical extracts in controlling leaf spot/leaf blight of coconut	To evaluate the response of fungicides and plant extracts against this pathogen	Patuakhali (Lebukhali)
199	Survey on the occurrence of diseases of golden apple (*Spondias dulcis*) in Barisal region	To identify and document impact of major diseases of golden apple	Barisal, Jhalkathi and Pirozpur
200	Survey of diseases of Citrus	To find out the incidence of various diseases for citrus mainly lime, lemon and mandarin and damages caused by them to the crop	Narsingdi (Shibpur)
201	Collection and identification of strawberry diseases	To identify the diseases of straw berry and their severity of destruction	Gazipur
Insect Pest Management			
202	Survey, collection and identification of different pollinators of mango	To identify different pollinators in mango orchard	
203	Survey, collection and identification of different pollinators of litchi	To know about the pollinator visited the litchi orchard during flowering stage	
204	Efficacy of different types of bagging for management of oriental fruit fly (*Bactrocera dorsalis*) attacking guava	To develop effective management option(s) against guava fruit fly	
205	Suceptibility of different varieties of litchi to litchi mite (*Aceria litchi* Keifer)	To study the varietal susceptibility of litchi to litchi mite	
206	Efficacy of different control measures against litchi mite (*Aceria litchi* Keifer)	To evaluate the various treatments for management of litchi mite	

Sl No.	Research Title	Objective(s)	Location
Soil and Water Management			
207	Effect of urea super granule (USG) with different levels of poultry manure (PM) & cowdung on the yield and quality of banana	To study the comparative yield and quality performance of banana as affected by the different levels of USG and organic manures and to develop USG-organic manure based fertilizer recommendation for quality banana production	Gazipur
208	Effect of irrigation and mulch on the yield of strawberry	To investigate the response of strawberry to irrigation and different mulch and to determine an appropriate irrigation schedule for strawberry production	Gazipur and Rangpur (Burirhat)
209	Response of strawberry to boron and zinc fertilization	To evaluate the response of strawberry (var. Festival) to B and Zn micronutrients and also to find out the optimum dose of boron and zinc	Gazipur
Post Harvest Management			
210	Quality of jackfruit bulb as affected by minimal processing	To extend the shelf life and maintain the quality of jackfruit bulbs using different levels of ascorbic acid	Gazipur
211	Storage stability of oven dried jackfruit leather	To investigate the storability of oven dried jackfruit leather affected by packaging materials	Gazipur
212	Physicochemical responses of mandarin to skin coatings	To find out suitable skin coating emulsions on prolonging shelf life of mandarin	Gazipur
213	Degreening of malta fruit using low-cost ethylene generator	To develop yellowish peel color of BARI Malta-1 for better appearance and marketing, and standardize the application method and effective doze of ethephon as a source of ethylene gas for degreening process of malta fruit	Gazipur
214	Methylcyclopropene in prolonging the postharvest green life of lemon	To investigate the effects of postharvest treatment with 1-MCP in extending the storage life of lemon maintaining better quality	Gazipur
215	Postharvest quality response of strawberry using edible coating with refrigerated storage	To study the effect of Aloe vera gel coating compared to different concentration of chitosan coatings on strawberry quality attributes during refrigerated storage	Gazipur
Socio-Economic Studies			
216	Adoption of BARI Peyara-2 and its constraints to higher production in some selected areas of Bangladesh	To know the adoption status of BARI Peyara-2, to estimate the profitability of improved BARI Peyara-2 at farm level and to find out the factors affecting the area under improved variety	Natore, Moulavibazar and Gazipur
Agro-forestry			
217	Performance of different fruits under multi strata cropping system	To develop multi-strata fruit garden with different combinations of fruit species in order to increase the farm income as well as year round fruit production	Gazipur

Sl No.	Research Title	Objective(s)	Location
TUBER CROPS RESEARCH CENTRE			
Hybridization and Selection of Potato			
218	Hybridization in Potato (Set-I, II, III, IV V and VI)	• To improve the genetic base of the parent population • To create variants for subsequent variety selection • To select biotic and abiotic resistant, and high yielding varieties	Joydebpur Debigonj
219	Production of Seedling Tubers of the Hybrid Populations (F_1C_0)	To produce seedling tubers for evaluation and variety selection, and estimation of combining abilities.	Debigonj Joydebpur
220	Field Evaluation of Clonal Hybrid (F_1C_1)	To select the superior plants	Debigonj
221	Preliminary Observation Trial with Clonal Hybrids (F_1C_2)	To select superior clone(s) for variety development	Debigonj
222	Secondary Observation Trial with Clonal Hybrids (F_1C_3)	To select superior genotype (s) for variety development	Debigonj
223	Preliminary Yield Trial with 4^{th} Generation Clonal Hybrids (F_1C_4)	To select the superior genotype (s) for variety development	Debigonj Joydebpur
224	Secondary Yield Trial with Clonal Hybrids (F_1C_5)	To select superior genotypes for variety	Debigonj, Jamalpur Joydebpur
225	Advanced Yield Trial with Clonal Hybrids (F1C6)	To select best performing clones to release as a variety	Gazipur, Debigonj, Jamalpur, Bogra, Munshigonj and Jessore
226	Regional Yield Trial With Clonal Hybrids	To select best performing clones to release as a variety	Gazipur, Debigonj, Jamalpur, Bogra, Munshigonj and Jessore
227	Participatory Variety Selection of Clonal Hybrids	To Select of suitable varieties in collaboration with farmers and other organization	Debigonj, Munshigonj, Jamalpur, Bogra and Jessore
Introduction and Selection of Exotic Varieties			
228	Preliminary Yield Trial of Exotic Potato Varieties for Table, Export and Processing Purposes (First Generation)	To observe physio-morphological, processing and export characters and tuber yield	Gazipur, Debigonj, Munshigonj, Bogra, Jamalpur, Jessore and Debigonj.

Sl No.	Research Title	Objective(s)	Location
229	Secondary Yield Trial with Exotic Potato Varieties for Table, Export and Processing Purposes (2nd Generation)	To select superior exotic varieties for Bangladesh condition	Gazipur, Bogra, Munshigonj, Jessore, Jamalpur, and Debigonj
230	Advanced Yield Trial with Exotic Potato Varieties for Table and Processing Purposes	To select the superior varieties for commercial cultivation.	Gazipur, Debigonj, Munshigonj, Bogra, Jamalpur and Jessore
231	Regional Yield Trial with Exotic Potato Varieties	To Select suitable varieties for release	Gazipur, Debigonj, Munshigonj, Bogra, Jamalpur and Jessore
232	Participatory Variety Selection of Exotic Potato Varieties	To select of suitable varieties in collaboration with farmers and other organization	Joydebpur Debigonj,Munshigonj,Jamalpur, Bogra, and Jessore
Development of Heat Tolerant Potato Variety			
233	Observation Trial with Clonal Hybrids	• To select the superior genotype(s) for early heat tolerant variety development • To select the parent for crossing program next year	Debigonj
234	Selection of Heat Tolerant Potato Variety for early Planting	• To select the superior genotype(s) for early variety development • To select the parent for crossing program next year	Debigonj
Germplasm Evaluation and Selection			
235	Participatory AYT with virus tolerant CIP Potato clones	To select suitable high yielding virus tolerance potato variety	Joydebpur, Jamalpur, Bogra, Munshigonj, Jessore & Debiganj
236	Participatory AYT with CIP promising clones	To select high yielding biotic/abiotic stress tolerant CIP clones	Jessore, Jamalpur, Joydebpur, Bogra, Debiganj, Munshiganj
237	Participatory Selection trials of CIP processing quality potato clones through Mother & Baby Trial Design in Bangladesh	• To show the performance of the promising advance lines to the farmers in their own field • Provide scope to the farmers to select the varieties/lines suitable for their own social and economic condition	Jessore and RARS, Barisal and farmers' field

Sl No.	Research Title	Objective(s)	Location
238	Participatory RYT of CIP potato clones for heat tolerance	To select suitable clone (s) for heat tolerance	ARS, Pahartali
239	Participatory RYT of CIP Potato clones for salt tolerance Potato clones for salt tolerance	To select suitable clones (s) for salt tolerance	Patuakhali, Satkhira Chittagong
Morphological Characterization and Documentation			
240	Morphological Characterization and Photographic Documentation of Advanced Breeding Lines of Potato	• To fulfill the DUS test requirement • To characterize the advanced breeding lines and released varieties • To develop photographic monograph with descriptors	Joydebpur Debigonj
TPS Breeding			
241	Screening of Parental Lines for TPS Production under Extended Photoperiod	To identify the genotypes capable of producing flowers and berries under extended photoperiod	Joydebpur Debigonj
Maintenance Breeding			
242	Maintenance of Released Potato Varieties, Germplasm, Lines and TPS Parents	To maintain the released potato varieties, germplasm and lines for future breeding programme	Burirhat RARS Hathazari,
243	Maintenance and Up scaling of Indigenous Potato Varieties	To improve the quality as well as maintain the indigenous potato varieties for future breeding programme	Joydebpur Debigonj
Variety Development of Sweet Potato			
244	Hybridization of Sweet Potato using Random Mating Cross	• To create variability and diversity over the existing genotypes of sweet potato • To develop high yielding, dry fleshed and carotene containing sweet potato varieties.	Joydebpur
245	Preliminary Yield Trial with F_1C_2 Hybrid Clones of Sweet Potato	• To select high yielding sweet potato clones • To select dry fleshed and carotene containing sweet potato clones.	Joydebpur
246	Preliminary Yield Trial with F_1C_3 Hybrid Clones of Sweet Potato	• To select high yielding sweet potato clones • To select dry fleshed and carotene containing sweet potato clones.	Joydebpur
247	Secondary Yield Trial with F_1C_4 Hybrid Clones of Sweet Potato	• To select high yielding sweet potato clones • To select dry fleshed and carotene containing sweet potato clones.	Joydebpur
248	Advanced Yield Trial with F_1C_5 Hybrid Clones of Sweet Potato	• To select high yielding sweet potato clones • To select dry fleshed and carotene containing sweet potato clones.	Joydebpur, Jamalpur, Bogra, Jessore, Pahartali,
249	Regional Yield Trial with F_1C_6 Hybrid Clones	• To select high yielding sweet potato clones • To select dry fleshed and carotene containing sweet potato clones.	Joydebpur, Jamalpur, Bogra, Jessore, Pahartali

Sl No.	Research Title	Objective(s)	Location
250	Regional Yield Trial with CIP Clones of Sweet Potato	• To select high yielding sweet potato clones • To select dry fleshed and carotene containing sweet potato clones.	Joydebpur, Jamalpur, Pahartali, Bogra, Jessore
251	Regional Yield Trial with F_1C_7 Hybrid Clones of Sweet Potato	• To select high yielding sweet potato clones • To select dry fleshed and carotene containing sweet potato clones.	Joydebpur, Jamalpur, Jessore, Pahartali, Bogra
252	Participatory Variety Selection Trial with F_1C_7 Hybrid Clones of Sweet Potato	• Selection of suitable varieties obtained from RYT in collaboration with farmers and other organizations • To know the farmers choice and opinion	Joydebpur, Jamalpur, Jessore, Pahartali, Bogra
253	Participatory Variety Selection Trial with CIP Clones of Sweet Potato	• Selection of suitable varieties obtained from RYT in collaboration with farmers and other organizations. • To know the farmers choice and opinion.	Joydebpur, Jamalpur, Jessore, Pahartali, Bogra
Collaborative Activities of Sweet Potato With TCRC & CIP			
254	Preliminary Observation Trial with CIP Clones of sweet potato	• To select high yielding sweet potato clones • To select dry fleshed and carotene containing sweet potato clones.	Joydebpur
255	Screening of sweet potato varieties/CIP clones for salt tolerance	To select high yielding salt tolerant sweet potato clones/variety	Satkhira Patuakhali
256	Participatory variety selection trial of OFSP clones	To select high yielding, dry fleshed and carotene containing sweet potato clones	Research and farmers field at Jessore, Barisal and Chittagong
257	Promotion Activities on Potato and Sweet Potato under USAID-Horticulture Project	• To increase the sweet potato yield and as well as in one of the farmers • To combating the malnutrition of Bangladesh	Jessore, Faridpur, Barisal, Nilphamari, Dinajpur
Aroids (Varietal Improvement)			
258	Collection and Maintenance of Aroids	• To increase the genetic resources of aroids and minor tuber crops • To maintain aroids germplasm for future use in breeding program.	All over Bangladesh
259	Regional Yield Trial Upland Taro lines	• To select high yielding mukhikachu lines(s) for releasing as a variety • Three advanced lines (MK-122, MK-129, MK-131 and MK-176) and Bilashi as check)	Joydebpur, Jamalpur, Jessore, Pahartali, Comilla, Barishal, Burirhat and Bogra

Sl No.	Research Title	Objective(s)	Location
260	Advanced Yield Trial of Low land Taro lines	• To select high yielding mukhikachu lines(s) for release in participation • Three promising lines (MK-122, MK-129, MK-131 and MK-176) and Bilashi as check)	Joydebpur, Jamalpur, Jessore Pahartali, Comilla, Barishal, Burirhat and Bogra
261	Regional Yield Trial of Ol-Kachu Lines	• To select superior line(s) • High yielding lines will be released as a variety	Joydebpur, Jessore, Ishwardi, Pahartali, Barishal, and Khagrachari
Production Technology (Potato)			
262	Screening of CIP Potato clones for NaCl salinity stress in pot condition	• To observe the effect of salinity on emergence and • To select suitable clones for salinity tolerance and yield potentiality in Lab (pot) condition	Joydebpur
263	Screening of Potato Varieties Against Salt Tolerance at Field	To identify the salt tolerant suitable potato variety at field condition	Kuakata, Patuakhali and ARS, Satkhira
264	Bulking behaviour of Promising potato Varieties and Germplasm	• To know the bulking behaviour of promising potato varieties/germplasm • To find out optimum time of harvesting for maximum production of large tubers required for processing.	Joydebpur Debigonj
265	Efficacy of New Herbicide Krizin 70% WP (Metribuzin 70% wp) against Bathua Weeds in Potato Field	To identify the suitable herbicide for potato production	Joydebpur
266	Effect of Planting Date and Harvesting Time on Better Yield of Sweet Potato.	• To find out the appropriate planting date • To find out the optimum harvesting time for maximum yield.	Gazipur, Debigonj, Monsigonj
267	Study on the Effect of Mulching on the Tuber Yield and Quality of Potato	• To find out the effect of mulching on tuber yield and quality • To find out the suitable mulch material(s) for quality potato production • To find out the effect of mulching on Potato Virus Y	Munshigong
Disease Management (General Survey and Monitoring)			
268	General Survey and Major Potato Diseases of Bangladesh	• To assess the abundance and severity of tuber crops diseases • To identify the new disease with their causal organisms	Joydebpur, Munshiganj, Chittagong, Khagrachari, Comilla, Bogra, Debigong,

Sl No.	Research Title	Objective(s)	Location
269	Efficacy of New Fungicides in Controlling Late Blight of Potato	• To find out the effective fungicides in controlling the disease • To reduce the yield loss	Bogra, Burirhut and Jamalpur.
270	Effect of Different Economic Spray Schedule of Mancozeb in Controlling Late Blight of Potato on Resistant and Susceptible Variety	• To determine the spray schedule of Mancozeb in controlling late • blight of susceptible and resistant varieties	Burirhat Bogra
271	Screening of New Fungicides against Leaf Blight of Panikachu	• To select effective fungicides against Phytophthora leaf blight • To reduce the yield due to the disease	Joydebpur, Jessore
272	Screening of Potato Varieties and Germplasm against Late Blight under Natural Field Condition	• To explore the resistant varieties/TPS/ germplasm • To reduce the yield due to disease	Rangpur, (Burirhat), Jamalpur Bogra
Bacterial Disease Management			
273	Screening of Different BARI Released Varieties against scab Disease of Potato	To find out the resistant/tolerant varieties/lines against scab disease of potato	Comilla, Joydebpur
274	Development of IDM Package Against Common Scab Disease of Potato	To develop a good IDM package for the management of common scab disease of potato	Gazipur, Comilla
Virus Disease Management			
275	Evaluation of Potato Varieties/ Germplasm for PLRV and PVY Resistance under Infection pressure (First progeny)	• To find out the virus disease resistant potato varieties/germplasm • To find out varieties/germplasm having slow degeneration rate	Joydebpur, Gazipur
276	Evaluation of Potato Varieties/Germplasm for PLRV and PVY Resistance under Infection pressure (Second progeny)	• To find out the virus disease resistant potato varieties/germplasm • To find out varieties/germplasm having slow degeneration rate	Joydebpur, Gazipur
277	Evaluation of Potato Varieties/Germplasm for PLRV and PVY Resistance under Infection pressure (Third progeny)	• To find out the virus disease resistant potato varieties/germplasm • To find out varieties/germplasm having slow degeneration rate	Joydebpur, Gazipur
278	Screening of Advanced CIP Potato Clones Against Virus Diseases	Joydebpur, Gazipur	Joydebpur, Gazipur
279	Screening of Sweet Potato Varieties/ Germplasm Against Virus Diseases	• To identify the resistant or tolerant forces of germplasm • Characterization of viruses in order to develop suitable management strategies of those viruses	Joydebpur, Gazipur

Sl No.	Research Title	Objective(s)	Location
280	Seasonal Abundance and Diversity of Virus Diseases, Aphids and Correlation with Temperature in Potato	To identify seasonal patterns of viruses, aphids and their association with temperature during growing season of potato	Joydebpur, Gazipur
Insect Pest Management			
281	Development of Integrated Management Package's for the Control of Potato Tuber Moth (PTM) in Storage Condition.	• To find out an effective management approach for potato tuber moth (PTM) • To estimate the extent of damage by PTM	Gazipur, Munshigonj
282	Development of Integrated Management Packages Against Potato Cutworm in Farmers Field.	• To find out an effective management approach for potato cutworm. • To estimate the extent of damage by PTM	Munshigong, Bogra
283	Development of Integrated Management Packages for the control of Potato Tuber Moth (PTM) in storage Condition.	• To find out the effective management approach for Potato Tuber Moth (PTM) • To estimate the extent of damage by PTM	Joydebpur, Munshigong
284	Effect of Different Management Approach Against Red Spider Mite of Panikachu	• To find out the suitable management option against red spider mite • Determination of damage severity by red spider mite	Joydebpur
Soil, Water and Nutrient Management			
285	Effect of Organic Manure and Inorganic Fertilizers on Potato (Solanumtuberosum) Production	• To develop a suitable fertilizer package in combination of organic manure and chemical fertilizers • To observe the storability of tuber under different nutrient management and • To study the post-harvest soil properties	Gazipur, Munshigonj Debigonj.
286	Evaluation of Fertilization Combination for Balanced Fertilizer Recommendation	• To observe the response of potato to different nutrients • To update and optimize the fertilizer package for potato matching the sol and agro climatic condition and • To maximize yield and quality potato	Joydebpur, Jamalpur, Debigang Munshigonj
287	Determination of Fertilizer Dose for Newly Released Potato Varieties	• To update and optimize the fertilizer package for newly released potato varieties • To monitor soil health after harvest • To estimate uptake of different plant nutrients and make a balance sheet for each of the nutrients.	Joydebpur, Debigang Bogra
288	Potassium Management for Yield and Quality of Potato	• To find out optimum doses of potassium for potato production. • To find out the influence of potassium on the quality of potato	Debigonj

Sl No.	Research Title	Objective(s)	Location
289	Effect of Foliar Application of Zinc on the Yield and Quality of Potato	• To evaluate the response of boron through foliar application • To find out optimum doses of boron through foliar application for maximizing the yield of potato • To find out influence of boron through foliar application on the quality of potato	Debigonj
290	Effect of Foliar Application of Boron on the Yield and Quality of Potato	• To evaluate the response of boron through foliar application • To find out optimum doses of boron through foliar application for maximizing the yield of potato • To find out influence of boron through foliar application on the quality of potato	Debiganj
291	Integrated Nutrient Approach for Yield storability and Nutritional Quality of Sweet Potato (*Ipomoeabatatas*)	• To develop a fertilizer package in combination of organic manure and chemical fertilizers for sustainable sweet potato production • To study the quality components and storability of sweet potato under integrated nutrient management	Joydebpur, Bogra
292	Effect of Nutrient Management on the Growth and Yield of Mukhikachu (*Colocasiaesculenta*)	• To observe the response of mukhikachu to different nutrients, • To update and optimize the fertilizer package for mukhikachu and • To maximize yield	Joydebpur, Jamalpur
Tissue Culture and Seed Production			
293	*In vitro* Maintenance of Potato and Sweet Potato Germplasm	• Aseptic preservation of germplasm and their maintenance • To increase genetic resource	Joydebpur
294	Development of Disease Free Plantlets of BARI Released Potato Varieties	• To develop new stock of virus free potato plantlets • To build up a large stock of in vitro potato plantlets for 1st generation minituber production of potato	Gazipur Debigonj
295	Production of Nucleus Seed (Minituber, G1) Using Disease free in vitro Potato plantlets	• To produce disease free minitubers from disease free plantlets under net house condition • To use the minituber for the production of Breeder's seed	Gazipur Debigonj
296	Performance of Different Hardening Methods for the Establishment of Potato Plantlets	• To find out the most effective methods for hardening • To reduce the mortality rate of the in vitro plantlets	Gazipur Debigonj
297	Optimization of Minituber Size and Planting Distance for the Breeder Seed Production of Potato	To find out the suitable size minituber for the production of A grade (28-55 mm) breeder's seed of potato	Gazipur and Debigonj
298	Minituber Production of Potato in the Green House	• Off season multiplication of mini tuber • To increase the amount of nucleus seed	Gazipur and Debigonj

Sl No.	Research Title	Objective(s)	Location
Seed Production			
299	Seed Production of Potato	• Ensuring the demand of quality seeds throughout the country • Producing breeder seed for BADC	Debiganj
300	Breeder seed Production of Sweet Potato and Aroids	• Production of quality planting materials of OFSP varieties (BARI SP-4, 8, 12 & 13) at different locations in order to distributing among the farmers for cultivation • To supply the quality aroids seeds to the growers	Gazipur
Post Harvest Technology			
301	Studies on Storage Behaviour of Potato Varieties/Germplasm under Natural Storage Conditions	• To assess the keeping quality of tubers, which is one of the varieties/germplasms • Major criteria for selection of. • To observe the marketability of the different varieties/germplasm under storage.	Gazipur
Processing			
302	Studies on the Processing Quality of Potato Cultivars and Hybrid Clones	• To select suitable varieties and germplasm lines for chips, French fries and Dried chips • To select the optimum colour and texture of the chips and French-fries	Gazipur
Other Programme (Farm Machinery)			
303	Evaluation and Extension of Power Tiller Operated Potato Planter in the Farmer's Field	• To demonstrate and evaluate the performance of the potato planter in the farmer's field • To compare the cost of planting of the planter with conventional method	Farmers field of Paba, Rajshahi
304	Development of Low Cost Power Tiller Operated Potato Harvest	• To develop a low cost power tiller operated potato harvester • To test the potato harvester performance both on station and in the farmers field • To compare the cost of harvesting by the harvester with conventional manual harvesting	Rajshahi
Technology Transfer			
305	Adaptive Trial with Newly Released Potato Varieties	• To popularize the newly released improved potato varieties (Location:Munshiganj, Bogra, Jessore, Jamalpur, Faridpur, Rajshahi, Rangpur, Tangail, Mymensing, Sherpur, Comilla, Chndpur, Patuakhali, Kushtia, Barishal, Satkhira, Bhola, Madaripur, Gopalgonj, Pahartoli& RARS, Chittagonj and Gazipur).	
306	Adaptive Trials with Newly Released Sweet Potato Variety	• To test the farm level adaptability of newly released Sweet potato variety and get their feedback • To popularize the newly released variety at farm level. (Location: Jamalpur, Comilla, Bogra, Rangpur, Panchagarh, Patuakhali, Jessore)	
307	Production of Quality Seed Potato at Farmers Level through Seed plot	• To test the adaptability of the improved varieties of Mukhikachu at farmers' level. (Location: Bogra, Chandpur, Chittagang, Comilla, Dinajpur, Faridpur, Gaibandha, Gazipur, Jamalpur, Jessore, Joypurhat,	

Sl No.	Research Title	Objective(s)	Location
	Technique	Kishorganj, Kurigram, Munshiganj, Nilphamari, Pabna, Patuakhali (RHRS), Patuakhali (OFRD), Rajshahi (Barind), Rajshahi (Shampur) Rangpur, Satkhira, Sherpur, Gopalgonj, Barisal, Bhola, Mymensingh and Thakurgaon)	
308	Conduction of Field days	• Showing the performance of new varieties to the group farmers • To demonstrate improve technologies like quality seed production, fertilizer and irrigation management and disease management etc. to the group farmers. (Location: Munshigonj, Patuakhali, Braishal, Jessor , Rangpur, Bogra, Jamalpur, Comilla, Chandpur, Khagrachori&Faridpur)	
309	Training to Farmers and Related Personnel	• To give idea about the system of conducting demonstrating of seed production through seed plot technique, data recording, crop production and seed preservation technologies.	Demonstration area (28 districts)
310	Training of Scientist, DAE Officers, BADC and NGO Personnel's on Improved Production Technologies of Tuber Crops	• Update the knowledge and skill on improve production technologies of tuber crops, acquainted with the new varieties of tuber crops • Get feedback about the problem of tube crops production in Bangladesh.	Gazipur
311	National Workshop on Present Status and Future Strategy for Tuber Crops Development	To assess the problems and prospects of Tuber Crops in Bangladesh	Gazipur
312	Annual Review Workshop	To review the research activities of the TCRC/BARI, Gazipur	Gazipur

OILSEED RESEARCH CENTRE

Varietal Improvement			
313	Evaluation of f_1 population of Brassica Rapa	The hybrid performance of the crosses involving five parents and to advance F_1 to F_2 generation	RARS, Ishwardi
314	Evaluation of f_1 generation of Brassica Juncea	To selection of desire type like high yield with bold seed late genotype, bold seed size varieties of *B. juncea*	RARS, Ishwardi
315	Preliminary yield trial of *Brassica Rapa* (Set-1)	To find out early lines with high yield and adaptive to wide range of environment and which can be fitted into existing T.aman - Mustard - Boro cropping pattern	RARS, Ishwardi
316	Preliminary yield trial of *Brassica juncea*	To find out the lines with high yield potential, better agronomic traits and wider adaptability	RARS, Ishwardi
317	Preliminary yield trial of *Brassica Juncea* (set-1)	To select the genotypes with high yield potential and better agronomic traits of fourteen genotypes	RARS, Ishwardi
318	Regional yield trial of *Brassica Rapa*	To find out early lines with high yield and adaptive to wide range of environment and which can be fitted into existing T.aman - Mustard - Boro cropping pattern	RARS, Ishwardi

Sl No.	Research Title	Objective(s)	Location
319	Regional yield trial of *Brassica Napus*	To find out the high yield and short day to maturity with wider adaptability	RARS, Ishwardi
320	Regional yield trial of *Brassica Juncea*	To find out the high yield potential genotypes of this species	RARS, Ishwardi
321	Regional yield trial of sunflower	To develop HYV of Sunflower immediately	RARS, Ishwardi
322	Regional yield trial of *Brassica juncea*	To find out the lines with high yield potential, better agronomic traits and wider adaptability	RARS
323	Regional yiesd trail of *Brassica rapa*	To select the short duration high yielding lines with better agronomic traits	RARS
324	Regional yield trial of *Brassica napus*	To find out the high yield potential genotypes of rapeseed	RARS
325	Preliminary yield trial of groundnut (Set-I)	• To select high yielding, early maturing variety • To select disease resistance lines with desirable agronomic traits	Gazipur
326	Regional yield trial of groundnut	To develop high yielding early maturity varieties suitable for existing cropping system	Gazipur
327	Regional yield trial of groundnut (Set- I)	Selected entries of Groundnut from preliminary yield trial & ICRISAT trial will be evaluated	Gazipur
328	Regional yield trial of Soybean	To select the high yielding genotypes	Gazipur
329	Breeder seed production of soybean	• To increase seeds of modern varieties of soybean • To supply seed to BADC, research divisions and other research organizations, NGOs, farmers etc	Gazipur
330	Breeder seed production rapeseed-mustard under IAPP	• To produces breeder seeds of modern varieties of rapeseed-mustard • To supply seed to BADC, DAE, research division and other research organizations, NGOs, farmers etc	Gazipur
331	Breeder seed production of Groundnut under IAPP	• To increase seeds of modern varieties of groundnut • To supply seed to BADC, DAE, research divisions and other research organizations, NGOs, farmers etc	Gazipur
332	Breeder seed and TLS production of Sesame under IAPP	• To increase seeds of modern varieties of sesame • To supply seed to BADC, DAE, research divisions and other research organizations, NGOs, farmers etc	Gazipur
Rapeseeds and Mustard			
333	Development of convergent crosses in *Brassica rapa*	To create genetic variability and accumulate favorable genes from several parents into a single cross.	Joydebpur
334	Development of BC_2S_1 in *Brassica rapa*	To create genetic variation and incorporate short duration gene into high yielding varieties	Joydebpur
335	Development of short duration inbred lines in *Brassica rapa*	To develop short duration inbred lines having desirable agronomic traits	Joydebpur

Sl No.	Research Title	Objective(s)	Location
336	Gene pyramiding of 16 genotypes of *B. rapa* into a single parent	To create genetic variability and accumulate favorable genes from 16 parents into a single parents	Joydebpur
337	Confirmation of F_1 population of *B. napus*	To confirm F_1 and to advance F_2 generation	Jamalpur
338	Evaluation of segregating generations of *Brassica rapa*	To advance generationand to select short duration plants/families having desirable traits	Joydebpur and Ishurdi
339	Observation Trial of *Brassica rapa* (Set-I)	To select short duration and erect type genotypes with better agronomic traits	Joydebpur
340	Observation Trial of *Brassica rapa* (Set-II)	To select short duration and erect type genotypes with better agronomic traits	Joydebpur
341	Preliminary Yield Trial of *Brassica rapa* (SET-I)	To select short duration and erect type genotypes with better agronomic traits	Joydebpur, Ishurdi and Jessore
342	Preliminary yield trial of *brassica rapa* (set-ii)	To select short duration and erect type genotypes with better agronomic traits	Joydebpur, Rahmathpu, Hathazari
343	Regional yield trial of *brassica rapa*	To select short duration high yielding lines with better agronomic traits and wider adaptability	Joydebpur, Ishurdi, Jamalpur, Jessore, Rahmatpur and Hathazari
344	Confirmation of f_1 generation of *brassica juncea*	Selection of desire type like high yield with bold seed late genotype, bold seed size varieties of *B. juncea*	Joydebpur
345	Evaluation of segregating generation of *brassica juncea*	To advance generation from F_5 to F_6 for selection of desirable type	Joydebpur
346	Preliminary yield trial of *brassica juncea* (set-I)	To find out the high yield potential genotypes of this species	Joydebpur, Ishurdi and Jessore,
347	Preliminary yield trial of *brassica juncea* l. (set-II)	To find out the high yield potential genotypes of this species	Joydebpur, Rahmathpur, Hathazari
348	Regional yield trial of *brassica juncea*	To find out the high yield potential genotypes of this species	Joydebpur, Ishurdi, Jamalpur, Jessore, Rahmatpur and Hathazari
349	Growing of f_2 and bc_2 generation of inter-specific hybridizaton between *b. Carinata*, *b. Rapa* and *b. Napuus*	To create genetic variability and incorporate stress tolerance genes from *B.carinata* into the varieties	Joydebpur
350	Maintenance of CMS, restorer and maintainer lines of *Brassica napus*	To maintain the male sterile and maintainer lines and use in future breeding programme	Joydebpur

Sl No.	Research Title	Objective(s)	Location
351	Identification of parental lines in *brassica rapa*	To identify parental lines (CMS, restorer and maintainer)	Joydebpur
352	Identification of parental lines in*Brassica napus*L.	To develop short duration parental lines	Joydebpur
353	Development of test crosses in *brassica napus*l.	To develop short duration parental lines	Joydebpur
354	Development of short duration parental lines In *brassica napus*l.	To develop short duration hybrid variety	Joydebpur
355	Introgression of oguracmsinto *brassica napus* l. Lines	To develop CMS lines through introgression of ogura CMS into *B. napus*	Joydebpur
356	Identification of early restorer genes in *Brassica napus*	To develop suitable early restorer from restorer lines collected from abroad	Joydebpur
357	Observation Trial of double low genotypes of *Brassica napus*	To observe the performance of double low genotypesand determine the amount of erucic acid and glucosinolate of the genotypes.	Joydebpur
Groundnut			
358	Maintenance and evaluation of groundnut germplasm	To evaluate the collected germplasm to use in the future breeding program	Joydebpur and Jamalpur
359	Hybridization of groundnut	To create genetic variability and to develop short duration variety of Groundnut	Joydebpur and RARS, Jamalpur.
360	Evaluation of segregating generations of groundnut	To advance generation and to select short duration plants having desirable traits	Joydebpur and Jamalpur
361	Observation trial of groundnut	To select high yielding, early maturing variety and disease resistance lines with desirable agronomic traits	Joydebpur and Jamalpur
362	Preliminary yield trial of groundnut (Set-I)	To select high yielding, early maturing variety and disease resistance lines with desirable agronomic traits	Joydebpur, Ishurdi and Burirhat
363	Regional yield trial of groundnut (Set-2)	To select high yielding, early maturing variety and disease resistance lines with desirable agronomic traits	Joydebpur, Jamalpur, Ishurdi, Jessore, Rahmatpur and Hathazari
364	Regional yield trial of groundnut (Set-1)	To select entries of Groundnut from preliminary yield trial & ICRISAT trial will be evaluated	Jamalpur, Joydebpur and Burirhat
Soybean			
365	Maintenance and evaluation of soybean germplasm	To maintain and evaluate the germplasm of soybean	Joydebpur

Sl No.	Research Title	Objective(s)	Location
366	Observation trial of soybean	To select high yielding genotypes for the next yield trial	Joydebpur
367	Regional yield trial of soybean	To select the high yielding genotypes	Joydebpur, Noakhali and Burrirhat
Sunflower			
368	Maintenance and evaluation of sunflower germplasm	To maintain and evaluate the germplasm of sunflower.	Joydebpur
369	Development of dwarf inbred lines in sunflower advancing S_4 to S_5 generation	To develop dwarf Inbred lines	Joydebpur
370	Observation yield trial of sunflower	To select high yielding, early maturing variety and disease resistance lines with desirable agronomic traits	Joydebpur
371	Regional yield trial of sunflower	To select high yielding, early maturing variety and disease resistance lines with desirable agronomic traits	Joydebpur, Jessore, Ishurdi and Rahmatpur
372	Identification of parental lines for hybrid development in sunflower	To identify parental lines (CMS, restorer and maintainer).	Joydebpur
Linseed			
373	Maintenance of linseed germplasm	To enrich and evaluate the genetic base of the gene pool of linseed	Joydebpur
Niger			
374	Maintenance of nigergermplasm	To enrich and evaluate the genetic base of the gene pool of niger	Joydebpur
Safflower			
375	Maintenance of safflower germplasm	To enrich and evaluate the genetic base of the gene pool of safflower	Joydebpur
Crop and Soil Management			
376	Performance of selected mustard genotypes under salinity condition in pot culture	To select salt tolerant mustard genotypes under salinity condition	Joydebpur
377	Screening of mustard genotypes for drought tolerance at flowering stage	To identify suitable mustard genotypes for drought tolerance	Joydebpur
378	Screening of soybean genotypes under drought condition	To identify suitable soybean genotypes for drought tolerance	Joydebpur
379	Effect of water stress at different growth stages on growth, yield and oil content of groundnut	To identify the critical growth stage of groundnut varieties/genotypes to water stress and to evaluate the yield and oil content loss assessment at different growth stages due to water stress	Joydebpur

Sl No.	Research Title	Objective(s)	Location
380	Effect of spacing on the growth and yield of high yielding varieties of groundnut	To identify the optimum plant spacing for normal growth and high yielding of groundnut	Joydebpur and Jamalpur.
381	Intercropping of chili with groundnut	To find out the optimum plant population of chili for intercropping with groundnut for higher productivity and return	Joydebpur
382	Performance of selected groundnut genotypes under drought prone area	To select suitable genotypes of groundnut for drought prone area	Jamalpur, Kishoregonj
383	Performance of sunflower varieties under different management practices	To select the suitable sunflower variety under different management practices	Joydebpur and Sathkhira
384	Performance of mustard varieties in the hilly valley areas of Khagrachari	To find out the influence of hilly environment on vegetative growth flowering behavior, pod setting and seed development in mustard varieties	Dighinala, Khagrachari and Raikhali
Disease Management			
385	Screening of rapeseed-mustard varieties/lines against *Alternaria* blight	To find out the resistant source(s) against *Alternaria*leaf blight disease of mustard.	Joydebpur, Ishurdi
386	Effect of pre-sowing seed treatment along with single foliar spray of fungicides to control *Alternaria*blight of rapeseed-mustard	To test effectiveness of seed treatment before sowing and foliar spray with fungicides against*Alternaria* blight and to develop effective control measures.	Joydebpur
387	Development of disease resistant, lea (low erucic acid) quality BARI Sarisha-14 through marker-assisted backcrossing	To introgression disease resistance! and LEA quality in BARI sarisha-14	Joydebpur
388	Evaluation of short duration, disease resistant resynthesized *B.napus*under Bangladesh environmental condition	To know the crop duration and yield of resynthesized (RS) *B. napus*	Joydebpur
389	Evaluation of Sclerotinia stem rot resistance in Bangladesh rapeseed-mustard germplasms using cotyledon assay method	To know the resistance level in Bangladesh Rapeseed-mustard germplasm	Joydebpur
390	Screening of groundnut line(s) against leaf spot and rust diseases	To find out the resistant lines against leaf spot and rust diseases and to enhance breeding activities	Joydebpur
391	Management of foot rot of groundnut by organic amendments, fungicide and bio-control agent	To find out effective control measure of groundnut foot rot disease	Joydebpur and Jessore

Sl No.	Research Title	Objective(s)	Location
392	Management of stem rot of sesame through fungicides	To identify the effective chemical (s) against the disease	Joydebpur, and Jessore
393	Evaluation of different management practices in controlling stem rot of sesame	To find out effective management options in controlling stem rot of sesame	Joydebpur
394	Evaluation of some fungicides and botanicals against leaf blight of sunflower	To find out the effect of fungicides and botanicals against leaf blight of sunflower	Joydebpur
Insect Pest Management			
395	Screening of rapeseed & mustard entries (*Brassica* spp.) against aphid (*Lipaphiserysimi* Kalt.)	To find out the tolerance genotypes against aphid	Joydebpur
396	Role of honey bee on the yield and yield contributing characteristics of BARI Sarisha-14	To assess/quantify the yield increase due to visit of honeybee	Joydebpur
397	Development of bio-control based management package against the major insect pest of soybean	To find out the most effective management package against these pests	Joydebpur
398	Evaluation of soybean entries against major insect pest	To find out the resistance genotypes against the major pests	Joydebpur
Post Harvest and Biochemical Studies			
399	Separation and identification of glucosinolates of rapeseed-mustard seeds by HPLC method	To separate and identify the glucosinolates present in the seeds, and determine the total and individual glucosinolates contents.	ORC lab, Joydebpur
400	Chemical characterization and nutritional evaluation of black and white sesame seeds in Bangladesh	To analyze the black and white sesame seeds grown in Bangladesh and compare their biochemical properties.	ORC lab, Joydebpur
401	Low erucic acid and high Omega-3, Omega-6 and omega-9 fatty acid content in some rapeseed/mustard cultivars developed in Bangladesh	To characterize the fatty acid profile, with particular emphasis placed on erucic acid levels in seed oils, and the variation among the major fatty acids in oils of the selected cultivars	ORC lab, Joydebpur

Sl No.	Research Title	Objective(s)	Location
402	Comparative study of rice bran oil and other edible oils in Bangladesh	To analyze and compare the biochemical/ fatty acids profile of the Rice bran oil (RBO) and other edible oils in Bangladesh	ORC lab, Joydebpur

SPICES RESEARCH CENTRE

Varietal Improvement			
403	Production of S_4 seeds for thin necked with longer shelf life on onion	To develop winter onion lines/varieties having thin necked bulb with longer shelf life with two types' bulbs of S4-3 & S_4-7 generation for seed production	Shibgonj, Bogra
404	Development of open pollinated population on onion (Set-I)	To developed new variety/lines of onion having higher yield with good keeping quality	Shibgonj, Bogra
405	Development of open pollinated population on onion (Set-II)	To developed new variety/lines of onion having higher yield with good keeping quality	Shibgonj, Bogra
406	Evaluation and selection of poly-crossed onion	• To identify superior cross products from poly-crossing of seven germplasm and • To select superior lines for further study	Shibgonj, Bogra
407	Purification and improvement of BARI Piaz-1 and BARI Piaz-4	To purification and improvement of BARI Piaz -1 and BARI Piaz-4 with desired characteristics e.g., color, size & shape, keeping quality, pungency, disease & insect resistance etc	Shibgonj, Bogra
408	Male sterility study in onion	• To search the male sterile line in onion • To develop male sterile line	Shibgonj, Bogra
409	Development of onion thrips tolerant line	To develop onion thrips tolerant line	Shibgonj, Bogra
410	RYT of promising garlic line	To study the regional adaptability of the selected garlic lines	Shibgonj, Bogra
411	On-farm verification trial of garlic varieties	• To evaluate the performances of garlic variety at different agro-ecological zones • To popularize new garlic variety at different locations among the farmers to promote their adoption.	Shibgonj, Bogra
412	Study of the genetic diversity of garlic	• To collect available germplasm from different areas • Evaluation of collected germplasm for selecting promising one(s)	Shibgonj, Bogra
413	Evaluation of garlic germplasm	• To collect and conserve garlic germplasm from different areas of Bangladesh • To select superior germplasm for further study	Different areas of Bangladesh
414	Screening of garlic lines against premature sprouting	• To find out the promising line(s) against pre-mature sprouting of garlic • Increase the storability of garlic	Different areas of Bangladesh
415	Regional yield trial of summer chilli lines	• To study the regional adaptability of the selected summer chilli lines	
416	On farm trial of chilli variety	• To study the performances of chilli variety at different agro-ecological zones • To popularize new chilli variety at different locations	

Sl No.	Research Title	Objective(s)	Location
417	Studies on genetic diversity in chilli	• To estimate the magnitude of genetic components of variation in Chilli • To understand the extent of direct and indirect influence of the components on yield • To study the genetic variability among the genotypes for selecting parents for hybridization	
418	Development of year round chilli variety through pure line selection	• To develop a year round chilli variety • To evaluate the line in different times of the year	
419	Evaluation of Naga chilli lines	• To select suitable line(s) for commercial cultivation. • Performance study of different lines giving same input.	
420	RYT of promising ginger lines	• To select the promising one for releasing a variety • Release as HYV variety	
421	Study of the genetic diversity of ginger	• To evaluate the performance of different germplasm • To select the promising one(s)	
422	Induced mutagenesis on ginger for improved yield components	• To create genetic variability in ginger • To improve yield components in ginger	
423	On farm trial of turmeric variety	• To evaluate the performances of turmeric variety at different agro-ecological zones • To popularize new turmeric variety at different locations among the farmers to promote their adoption	
424	Evaluation of turmeric lines	• To find out the suitable genotype for higher yield with better quality and tolerant to common pest and diseases • To identify the individual germplasm • To document and their effective gene bank management • To provide a clear cut marker of genetically diverse gene pool, from where a plant breeder will mold new variety	
425	Evaluation of coriander germplasm	• To evaluate the germplasm collected from different sources • To identify the best line/lines with high yield and other desirable characters	
426	Evaluation of black cumin germplasm	• To evaluate the germplasm collected from different sources • To identify the best line/lines with high yield and other desirable characters	

Sl No.	Research Title	Objective(s)	Location
427	Evaluation of fenugreek germplasm	• To evaluate the germplasm collected from different sources • To identify the best line/lines with high yield and other desirable characters	
428	Evaluation of fennel germplasm	• To evaluate the germplasm collected from different sources • To identify the best line/lines with high yield and other desirable characters	
429	Regional yield trial of fennel	• To select the promising one for releasing a variety • To evaluate the performance of advance fennel lines at different agro ecological zones	
430	Collection and evaluation of Ajowan germplasm	• Evaluation of the performance of germplasm • Selection of the promising one(s)	
431	Evaluation of bay leaf germplasm (*Cinnamomum tamala*)	• To develop new variety with higher yield potentiality • To preserve the various germplasm of bay leaf at SRC	
432	Evaluation of bay leaf germplasm	• To select the superior line(s) for releasing a variety	
433	Evaluation of cinnamon germplasm	• To characterize the germplasm based on their morphological characters • To identify the best line(s) with high yield and other desirable character	
434	Evaluation of cumin germplasm	• To collect and conserve potential aromatic medicinal herbs from different areas of Bangladesh • To evaluate its' yield and economic potentiality • To select superior germplasm for further study	
435	Evaluation of betel leaf germplasm	• To evaluate the germplasm collected from different sources • To characterize materials based on various morphological studies • To identify the best line/lines with high yield and other desirable characters	
Cultural Management			
436	Validation of onion seed production technologies at Faridpur region	• To validate the onion seed production technologies at farmer's field • To refine the technologies at farmer's field	Faridpur
437	Effect of herbicides and time of spraying for weed control in onion seed production	To select suitable herbicides and optimum time of spraying for better weed control for maximizing higher seed yield of onion.	
438	Effect of planting method on onion bulb production	To identify effective planting method for higher bulb yield of onion	

Sl No.	Research Title	Objective(s)	Location
439	Effects of clove weight and plant density on vegetative growth development and yield of garlic	• To find out the effect of clove weight on yield component, quality and yield of garlic • To find out the suitable spacing for quality and yield of garlic	
440	Performance of different garlic varieties under mulch condition	• To study the effects of tillage and different thickness of mulches on the growth, development, quality and yield of garlic	
441	Inter-cropping turmeric with chilli for higher productivity	• To find out better crop combinations of turmeric with chilli inter cropping system • To increase total productivity	
442	Effect of stages of harvest and post harvest ripening period on seed quality in Naga chilli	• To identify the right stage for harvesting Naga chilli • To find out suitable post harvest ripening period for good quality seeds in Naga chilli	
443	Effect of seed rate and sowing method on the yield of black cumin	• To determine optimum seed rate • To identify suitable sowing method	
444	Effect of row spacing and phosphorus doses on yield and yield attributes of fenugreek (*Trigonella foenum-graecum*)	Effect of row spacing and phosphorus doses on yield and quality of fenugreek (Trigonella foenum-graecum	
445	Effect of sowing time and plant spacing on fennel seed production	• To find out the optimum sowing time of fennel • To find out the optimum plant spacing of fennel for maximizing seed yield	
446	Study on multiplication techniques of bay leaf *(Cinnamomum tamala)*	• To find out suitable multiplication technique of bay leaf	
447	Studies on multiplication methods of black pepper (*Piper nigrum l.*) var. Jaintia gol morich under Jaintapur condition	• To find out the rapid multiplication technique for vegetative propagation of Jaintia Black Pepper for extending production area	Jaintapur
448	Effect of IBA concentration on the success of cutting and air layering of plum	• To know the effect of IBA on success of Alubokhara layering. • To maximize success of Alubokhara layering	
Nutrient and Water Management			
449	Effect of NPKS on growth and yield of Naga Morich	To select the proper NPKS fertilizer dose for better growth and yield of Naga chilli	CRS, Jaintiapur
450	Effect of integrated nutrient management (INM) on the growth and yield of fenugreek	• To evaluate the yield responses of Fenugreek to INM-based treatments • To assess the nutrient uptake pattern and protein content and determine the changes in the soil nutrient balance sheet through INM-based treatments	SRC, Bogra

Sl No.	Research Title	Objective(s)	Location
451	Effect of irrigation and nitrogen fertilizer on the yield and yield components of fennel	• To develop irrigation schedule for higher yield of fennel • To rationalize the N fertilizer rate under the available water supply • To find out the critical growth stage of irrigation	SRC, Bogra
452	Effect of N, P, K and S on the growth and yield of dill	To standardized the fertilizer dose of dill	SRC, Bogra
453	Effect of N, P and K on the yield and quality of betel leaf	• To assess the effect of N, P,K and S on the yield and quality of betel leaf • Increase yield and quality leaf through nutrient management	SRC, Bogra
Insect and Disease Management			
454	Screening of onion germplasm against thrips (*Thrips tabaci*)	To evaluate the performance of eighteen onion lines and five varieties against Thrips tabaci.	SRC, Bogra
455	Integrated management of onion thrips (*Thrips tabaci*)	To find out the best performing management options against thrips for bulb production	SRC, Bogra
456	Management of thrips in seed onions to enhanced seed yield	To assess the efficacy of bio-rational and synthetic insecticides against thrips infestation to enhance seed yield of onion	SRC, Bogra
457	Development of insecticide based management approach against thrips and iris yellow spot virus in onion	To evaluate some insecticides for the management of thrips and Iris yellow spot virus in onion	SRC, Bogra
458	Effect of different transplanting dates for the management of thrips in onion	To find out the population dynamics and assess the level of thrips damage and its effect on onion bulb yield	SRC, Bogra
459	Population dynamics and management of thrips in bulb onion by use of vegetable intercrops	To study the population dynamics and To evaluate the effectiveness of vegetable intercrops in the management of thrips in bulb onions	SRC, Bogra
460	Evaluation of garlic genotypes against thrips	To screen out different resistant/tolerant genotypes or cultivars of garlic against thrips	SRC, Bogra
461	Development of eco-friendly pest management practices against thrips-mite complex of chilli	To develop an integrated management approach against thrips-mite complex of chilli	SRC, Bogra
462	Management of leaf gall in bay leaf (*Cinnamomum tamala*)	To find out suitable management option against gall forming Eriophyid mites in bay leaf	SRC, Bogra
463	Screening of onion lines/varieties against Stemphylium leaf blight disease	To find out resistance source of onion against this disease	SRC, Bogra

Sl No.	Research Title	Objective(s)	Location
464	Efficacy of new fungicides in controlling Stemphylium leaf blight of onion	To evaluate the efficacy of some new fungicides in controlling stemphylium leaf blight disease in the field condition	SRC, Bogra
465	Efficacy of fungicides in controlling purple blotch of onion	To evaluate the efficacy of some fungicides considering the check control Rovral in controlling purple blotch disease in field condition	RSRC, Gazipur
466	Identification of garlic leaf blight: first time record in Bangladesh	To identify the new disease of garlic and its causal organism.	SRC, Bogra
467	Management of rhizome rot of ginger through chemicals and bio-control agents	To find out the suitable control measures in controlling rhizome rot of ginger	SRC, Bogra
468	Integrated management of rhizome rot of ginger	To find out the control measure of rhizome rot through an integrated management	SRC, Bogra
469	Development of management option (s) against rhizome rot of ginger	To develop the management option (s) against the disease	RSRC, Gazipur
470	Screening of turmeric lines /varieties against leaf blotch disease	To screen promising genotypes of turmeric as sources of resistance/tolerance to leaf blotch disease	SRC, Bogra
471	Efficacy of fungicides in controlling leaf blotch of turmeric	To find out the effective fungicides in controlling leaf blotch of turmeric	SRC, Bogra
472	Efficacy of fungicides in controlling leaf spot of turmeric	To study the efficacy of some fungicides in controlling leaf spot of turmeric	RSRC, Gazipur
473	Identification of diseases and isolation of pathogens of fennel	To identify and isolate of pathogens of different diseases of Fennel	SRC, Bogra
474	Identification of diseases and isolation of pathogens of cumin, black pepper and cardamom	• To identify new diseases as well as recording of existing diseases, and • To isolate andidentify pathogens of cumin, black pepper and cardamom diseases	SRC, Bogra
475	Screening of bay leaf lines against leaf spot and grey leaf spot disease	To find out resistance source of plant against this disease	SRC, Bogra
476	Management of grey leaf spot/blight disease of bay leaf (*Cinnamomum tamala*)	To determine the effective fungicides/botanical against grey leaf spot in bay leaf	SRC, Bogra
477	Effect of fungicides in controlling wilt disease of cumin	To find out the effective fungicides in controlling wilt disease of cumin through seed treatment and soil drenching	SRC, Bogra
478	Effect of fungicides in controlling Alternaria blight of cumin	To find out the effective fungicides in controlling Alternaria blight of cumin	SRC, Bogra

Sl No.	Research Title	Objective(s)	Location
Post Harvest Technology			
479	Osmotic dehydration of garlic	To determine drying kinetics of garlic using osmotic dehydration and to optimize process parameter to obtained high quality dried products	SRC, Bogra
480	Development of products from all spice (*Pimenta dioica*) leaves and its sensory evaluation	• To use of leaf as a spice • To study the drying behavior of all spice	SRC, Bogra
Socio Economic Study			
481	A study on production and price relationship for ginger in Bangladesh: an analysis by using distributed lag model	• To study the fluctuation of price, area, production and yield of ginger. • To determine the relationship between the prices and production amount of ginger, a staple spices in Bangladesh	Ginger growing areas in Bangladesh
482	Marketing and value chain analysis of ginger: a study in selected areas of Bangladesh	• To examine the existing marketing system of ginger • To determine the marketing cost, margin and profit of intermediaries on different domestic markets • To estimate the marketing efficiency of different marketing channel • To examine the value chain of ginger aiming to determine the value addition in different steps of marketing channel	Nilphamari, Lalmonirhat and Khagrachari
Seed Technology			
483	Breeder seed production of Garlic (BARI Roshun-1 and BARI Roshun- 2)	To increase BARI Rashun-1 and BARI Rashun-2 seed to hand over the same to seed multiplying agencies	On Station
484	Breeder seed production of Onion (BARI Piaj-1)	To increase BARI Piaj-1 seed to hand over the same to seed multiplying agencies	On Station
485	Breeder Seed Production of garden pea	Production of breeder seeds for further multiplication	On Station

PLANT GENETIC RESOURCES CENTRE

486	Collection of germplasm	• To survey and prepare an inventory of PGR of cultivated and their wild relatives of geographical indication crop. • To document Indigenous Technical Knowledge (ITK) on potential underutilized crops for food security and commercial exploitation	Joydebpur
487	Exploration and Collection of chili, cucumber and melon germplasm	• To enrich the PGR collection of Chili, cucumber and melon germplasm. • To prepare an inventory of collected PGRs of chili, cucumber and melon germplasm • 420 germplasm of 3 crops have been collected under AFACI-IMPGR project.	Joydebpur
488	Characterization of Hyacinth bean germplasm	• To study the genetic diversity in Hyacinth beangermplasm • To identify salient features that distinguish accessions from one another • To identify accessions having useful traits	Joydebpur

Sl No.	Research Title	Objective(s)	Location
489	Characterization of Turmeric germplasm	• To find out the variation in the accessions • To identify accessions having useful traits	Joydebpur
490	Characterization of Grass pea germplasmat Jamalpur	• To study the genetic diversity in Grass pea germplasm • To identify accessions having useful traits	Joydebpur
491	Characterization of Chickpea germplasm	• To study the genetic diversity in chickpea germplasm • To identify accessions having useful traits	Joydebpur
492	Characterization of Chili germplasm	• To study the genetic diversity in chili germplasm • To identify salient features that distinguish germplasm from one another and • To identify germplasm having useful traits	Joydebpur
493	Characterization of Amaranth germplasm	• To characterize the germplasm and regenerate seed for conservation • To develop photographic monograph with descriptors	Joydebpur
494	Characterization of Horse gram germplasm	▪ To characterize the germplasm and regenerate seed for conservation • To develop photographic monograph with descriptors • To identify commercially important trait(s)	Joydebpur
495	Characterization of Snake gourd germplasm	• To study the genetic diversity in snake gourd germplasm • To identify salient features that distinguish germplasm from one another and • To identify germplasm having useful traits	Joydebpur
496	Characterization of Foxtail millet germplasm	• To study the genetic diversity in foxtail millet germplasm • To identify salient features that distinguish germplasm from one another and • To identify germplasm having useful traits	Joydebpur
497	Characterization of Mung bean Germplasm	• To study the genetic diversity in mung bean germplasm • To increase seed and • To identify germplasm having useful traits	Joydebpur
498	Screening and characterization of potential rapeseed-mustard germplasm under salt stress	• To identify the tolerant germplasm under different salt level • To study the physiological activities among salt tolerant and susceptible accession • To identify salient feature that distinguish germplasm • To study the genetic diversity in rapeseed-mustard germplasm	Joydebpur
499	Characterization of Yard long bean germplasm	• To study the genetic diversity in yard long been germplasm • To identify salient features that distinguish germplasm from one another and • To identify germplasm having useful traits	Joydebpur

Sl No.	Research Title	Objective(s)	Location
500	Characterization of Grass pea germplasm at Gazipur	• To study the genetic diversity in Grass pea germplasm • To identify accessions having useful traits	Joydebpur
501	Characterization of Mung bean germplasm at Ishurdi	• To study the genetic diversity in mung bean germplasm • To identify germplasm having useful traits	Joydebpur
502	Characterization of Grass pea germplasm at Ishurdi	• To study the genetic diversity in Grass pea germplasm • To identify accessions having useful traits	Joydebpur
503	Characterization of Grass pea germplasm at Jessore	• To study the genetic diversity in Grass pea germplasm • To identify accessions having useful traits	Joydebpur
504	Regeneration of newly collected germplasm of different crops	• To regenerate the seeds of newly collected germplasm • To regenerate the seeds for characterization and distribution	Joydebpur
505	Regeneration of Conserved Accessions of Different Crops	• To increase the viability of the conserved accessions • To regenerate the seeds of conserved accessions	Joydebpur
506	Maintenance and Development of Field Gene bank	To maintain existing germplasm of vegetatively propagated crops in field genebank	Joydebpur
507	*In vitro* conservation of Potato	To conserve the vegetatively propagated crops for *in vitro* condition	Joydebpur
508	*In vitro* conservation of Mint	To conserve the vegetatively propagated crops for *in vitro* condition	Joydebpur
509	Database Development for Germplasm Documentation	• To develop a database software for information system • To document information on collection, characterization, conservation, utilization and exchange of germplasm	Joydebpur
510	Morphological characterization of mungbean germplasm	To identify the important traits of mungbean accessions	RARS, Ishwardi
511	Morphological characterization of grasspea germplasm	To identify the important traits of grasspea accession	RARS, Ishwardi
512	Morphological characterization of chickpea germplasm	To find out the variation in the accessions, regenerate seed for conservation and identify commercially important trait	RARS, Ishwardi
513	Morphological characterization of brinjal germplasm	To identify the important traits of brinjal accessions	RARS, Ishwardi
514	Morphological characterization of country bean germplasm	To identify the important traits of country bean accessions and to know genetic diversity of country bean accessions	RARS, Ishwardi

Sl No.	Research Title	Objective(s)	Location

PULSE RESEARCH CENTRE

Varietal Improvement			
Blackgram			
515	Advancement of fillial generations in blackgram	Advancement of F_2 and F_6 generation of blackgram	Ishwardi, Pabna
516	Preliminary yield trial of blackgram	Selection of stable genotypes for Regional Yield Trial which are prerequisite for variety development	Ishurdi, Pabna; Jessore; Jamalpur and Gazipur
Lentil			
517	Hybridization and advancement of fillial generations in lentil	Hybridization and advancement of F_1 to F_5 generations of lentil	PRC, Ishwardi, Pabna
518	Observation trial of lentil	Selection of genotypes for Preliminary Yield Trial which are prerequisite for variety development	PRC, Ishwardi, Pabna
519	Regional yield trial of lentil	Selection of stable genotypes over different locations for PVS which are prerequisite for variety development	Ishurdi, Pabna; Madaripur; Joydebpur; Jessore and Jamalpur
520	Screening advanced lines/varieties of lentil under late and optimum sown condition	Identification of genotypes/variety having high yield potential in late sown under terminal heat stress condition	PRC, Ishwardi, Pabna
521	Regional adaptive trials on lentil in SAARC member countries	Selection of disease resistant and adaptable genotypes in Bangladesh environments	
Pea			
522	Hybridization of pea	Creation of genetic variation for desired characters and for the development of high yielding, disease resistance, short duration variety with strong root system having bold seed	PRC, Ishwardi, Pabna
523	Regional yield trial of pea	Find out the short duration and/or long duration lines with economically important traits for releasing as a variety in the rice based cropping system	PRC, Ishurdi, Pabna and RARS, Jessore
524	Evaluation of local pea genotypes	Evaluation of the existing cultivars/varieties of pea to evaluate their performance at Ishurdi condition	PRC, Ishwardi, Pabna
Chickpea			
525	Hybridization and advancement of fillial generations in chickpea	Hybridization and advancement of F_3 and F_5 generations of chickpea	PRC, Ishurdi, Pabna
526	Observation trial of chickpea	Selection of genotypes for Preliminary Yield Trial which are prerequisite for variety development	PRC, Ishurdi, Pabna
527	Preliminary yield trial of chickpea	Selection of stable genotypes for Regional Yield Trial which are prerequisite for variety development	Ishurdi, Pabna; Gazipur; Madaripur and Jessore

Sl No.	Research Title	Objective(s)	Location
528	Regional yield trial of chickpea	Selection of stable genotypes over different locations for PVS which are prerequisite for variety development	Ishurdi, Pabna,Gazipur, Jessore; Barisal, Madaripur and OFRD, Barind, Rajshahi
529	Chickpea international screening nursery- desi type	Find out more suitable entries which can adapt well in our prevailing environments	PRC, Ishurdi, Pabna
530	Chickpea international screening nursery- early type	To evaluate earliness of exotic genotypes in Bangladesh condition	PRC, Ishurdi, Pabna
531	Chickpea international BGM screening nursery	To evaluate exotic genotypes under the trial of BGM screening inBangladesh condition	PRC, Ishurdi, Pabna
532	Chickpea international screening nursery-heat tolerance	Evaluation of the exotic genotypes under heat stress condition	PRC, Ishurdi, Pabna
533	Chickpea international screening nursery-MABC (marker assisted back cross) trial	Evaluation of the back crossed exotic materials in Bangladesh ccondition	PRC, Ishurdi, Pabna
Grasspea			
534	Observation trail of grasspea germplasm	Evaluation of the collected grasspea germplasm from ICARDA	Ishurdi, Pabna and Benerpota, Satkhira
535	Evaluation of grasspea germplasm	Evaluation of the local grasspea germplasm	PRC, Ishurdi, Pabna
Mungbean			
536	Hybridization and advancement of filial generations in mungbean	Hybridization and advancement of F_1 to F_5 generations of mungbean	PRC, Ishurdi, Pabna
537	Observation trial of mungbean	Selection of genotypes for Preliminary Yield Trial which are prerequisite for variety development	PRC, Ishurdi, Pabna
538	Preliminary yield trial trial of mungbean	Selection of stable genotypes for Regional Yield Trial which are prerequisite for variety development	PRC, Ishurdi, Pabna; RPRS, Madaripur, RARS, Barishal and RARS, Jessore
539	Regional yield trial trial of mungbean	Selection of stable genotypes over different locations for PVS which are prerequisite for variety development	PRC, Ishurdi, Pabna; RPRS, Madaripur, RARS, Jessore and OFRD, Rangpur
Crop and Soil Management			
Pea			
540	Development of management package for BARI Motorshuti-3 for t.aman-pea-boro rice cropping pattern	Find out the optimum seed rate, sowing method, irrigation and top dressing of urea for optimizing growth and yield of BARI Motorshuti-3	RARS, Jessore

Sl No.	Research Title	Objective(s)	Location
541	On-farm validation of green pea as vegetable in the t.aman rice- pea (sole) - boro rice cropping pattern under upland condition.	Study of feasibility of growing pea (BARI Motorshuti-3) as vegetable crop in the T.aman-Pea –Boro rice cropping pattern under upland condition	Jessore
542	Validation of relay cropping of pea with T. aman rice under T. aman - pea- T.aus/jute cropping pattern	Study the feasibility of growing field pea as relay cropping in the T. aman-pea-T. aus/jute cropping pattern	Faridpur, Pabna and Jamalpur
543	Effect of zinc and boron on yield and yield contributing characters of fieldpea	To evaluate the effect of Zn and B on yield and yield components of fieldpea To estimate the optimum dose Zn and B for yield maximization of fieldpea	RPRS, Madaripur
Lentil			
544	Effect of date of sowing on lentil growth and yield (APSIM trial)	▪ Influence of sowing date on the growth and yield in varying moisture, temperature and day length ▪ Better establishment of lentil for higher yield	Ishurdi, Pabna and Jessore
545	Effect of irrigation on growth and yield of lentil under different sowing methods	To find out the effect of irrigation on growth and yield of lentil	PRSS, Gazipur
546	Up- scaling of relay cropping of lentil in the farmers field	▪ To establish relay cropping of lentil as a potential technology ▪ To reduce yield gap due to late planting and up scaling of the technology	Pabna, Natore, Kushtia and Faridpur
547	Response of lentil to micronutrients application	To find out the effective doses of micronutrients (Zn, B and Mo) for lentil yield maximization in calcareous and terrace soils of Bangladesh	RPRS, RARS, Madaripur, PRSS, Gazipur and Jessore
548	Influence of different levels of potassium on nodulation, quality, yield and nutrients uptake of lentil	To estimate the suitable doses of K for nodulation, quality and yield maximization of lentil as well as to measure nutrient balance in soil	PRSS, Gazipur
Cowpea			
549	Evaluation and adaptation of cowpea genotypes in coastal area	To find out the suitable genotype(s) for better adaptation and higher yield of cowpea in southern coastal region of Bangladesh	RARS, Barisal
Mungbean			
550	Response of mungbean to micronutrients application	To find out the effective doses of micronutrients (Zn, B and Mo) for mungbean yield maximization in calcareous and terrace soils of Bangladesh	RPRS, Madaripur
551	Comparative economic performance of pulse based cropping patterns with farmer's patterns	Comparative economic profitability of pulses based cropping patterns with the farmers' existing cropping patterns	RPRS, Madaripur

Sl No.	Research Title	Objective(s)	Location
Pulse Pathology			
Lentil			
552	Efficacy of fungicides in controlling stemphylium blight of lentil	To find out the effective fungicides in controlling stemphylium blight of lentil	PRC, Ishurdi, Pabna
553	Screening of lentil lines against stemphylium blight under inoculated condition	To find out the resistant source against Stemphylium blight of Lentil	PRC, Ishurdi, Pabna and PRSS, Gazipur
554	Development of stemphylium blight of lentil under inoculated condition at different crop ages	To ensure whether plant growth stage has any role on disease development	PRC, Ishurdi, Pabna and RARS, Jessore
555	Determination of spray time and number of rovral spray in controlling stemphylium blight of lentil	To find out the effective spray time and number of rovral spray in controlling stemphylium blight of lentil	PRC, Ishurdi, Pabna and PRSS, BARI, Gazipur
556	Fungicidal management of stemphylium blight of lentil	To find out the most effective fungicides in controlling stemphylium blight of lentil	RPRS, Madaripur
Pea			
557	Control of powdery mildew of pea	To find out the effective management practice against powdery mildew disease of garden pea	PRC, Ishurd, Pabna
558	Fungicidal management against rust disease of pea	To find out the effective fungicides to control rust disease of garden pea	PRC, Ishurdi, Pabna
Chickpea			
559	Efficacy of fungicides in controlling botrytis gray mold (BGM) of chickpea	To find out the most effective fungicides in controlling Botrytis gray mould of Chickpea	RPRS, Madaripur
Mungbean			
560	Screening of mungbean lines resistant to MYMV and CLS	To select Suitable mungbean lines which are resistant to MYMV and CLS having high yielding capacity	RPRS, Madaripur
561	Screening of high yielding mungbean lines resistant to yellow mosaic virus (YMV)	To find out suitable mungbean lines which are resistant to YMV and CLS having high yielding capacity	RPRS, Madaripur
562	Evaluation of high yielding advanced lines of mungbean resistant to MYMV and CLS	To find out suitable mungbean lines which are resistant to YMV and CLS having high yielding capacity	RPRS, Madaripur

Sl No.	Research Title	Objective(s)	Location
Pulse Entomology			
563	Evaluation of different management packages against flower thrips and pod borers of mungbean (*Vigna radiata* l.)	To evaluate the efficacy of some IPM package and its economics to manage flower thrips and pod borers	PRC, Ishurdi, Pabna
AGRONOMY DIVISION			
Crop Management			
564	Performance of hybrid maize varieties in the Rabi season	To find out suitable hybrid maize variety for maximum yield.	Joydebpur, Jamalpur and Rajbari
565	Yield of winter chilli as affected by seedling age and number of seedling per hill	To find out the suitable seedling age and number of seedling/hill for maximum yield of winter chilli	Joydebpur, Jamalpur and Barisal
566	Effect of sowing date and row spacing of coriander	To evaluate the proper sowing time and spacing of coriander	Joydebpur and Bogra
567	Effect of irrigation interval on the growth, yield and storability of garlic	• To find out the appropriate irrigation schedule for optimum growth and yield of garlic • To find out subsequent effect of irrigation schedule on storability of garlic	Joydebpur and Ishurdi
568	Effect of harvesting stage for quality vegetable production of different varieties of bushbean	To assess the harvesting time for desired yield (of bushbean) and quality vegetable production.	Joydebpur
569	Response of Hybrid maize to different sources of nitrogen	To evaluate the efficiency and advantages of using USG over prilled urea with respect to yield and yield attributes of maize	Rahmatpur Barisal
570	Effect of integrated nutrient management of inorganic and organic fertilizers on the performance of wheat	Comparative performance of wheat due to integrated use of bio-slurry along with inorganic fertilizers over use of sole inorganic fertilizers.	Rahmatpur Barisal
571	Effect of planting technique on tuber yield of potato	To find out the tuber state (cut or non cut) along with spacing for higher yield of potato	Joydebpur
572	Effect of sowing depth in wheat	To know the effect of sowing depth on emergence, tillering ability and yield of wheat.	Rajbari, Dinajpur
573	Performance of hyrid maize preceded by T.aman rice under zero tillage-soil mulch condition at ishwardi region	To find out suitable variety of hybrid maize under zero tillage-soil mulch condition and to reduce cost of production.	Ishurdi, Pabna
574	Effect of tillage and plant population on growth and yield of hybrid maize	To find out optimum tillage and planting technique for higher yield of hybrid maize and to reduce cultivation cost in maize production	Burirhat Rangpur

Sl No.	Research Title	Objective(s)	Location
Weed Management			
575	Effect of different doses of herbicide (Depon 10 EC) for controlling weeds in maize field	To find out the optimum dose of herbicide to control weeds in corn field	Joydebpur
576	Effect of herbicides on soil and crop performance of wheat and mungbean	To find out the effect of herbicides on soil properties	Ishurdi
577	Effect of tillage method and weed management on the yield of hybrid maize	To find out the effect of tillage method on the yield of drought tolerant hybrid maize	Joydebpur
578	Effect of weed management on the yield of green chilli	To determine the critical period of weed competition in chili and the extent of yield damage due to weed competition of different duration in the life cycle	Hathazari
Multiple Cropping			
579	Intercropping lalshak with chilli under different planting system	To find out profitable chilli and lalshak combination for getting higher productivity	Joydebpur, Khagrachari and Hathazari
580	Intercropping squash with maize under varying planting system	To find out the suitable planting arrangement of squash intercropped with Maize.	Joydebpur, Hathazari and Rajbari
581	Suitability study of different winter vegetable with sweet gourd	To find out the suitable vegetable which performed better intercropped with sweet gourd	Joydebpur, Hathazari and Rajbari
582	Intercropping bush bean with brinjal at varying planting system	To find out suitable intercropping system of Brinjal with French bean	Joydebpur and Rajbari
583	Relay mustard with T.aman rice under different management at Ishurdi region	To findout the best management practices for improving yield of mustard in relay with T.aman rice.	Ishurdi
584	Relaying hybrid maize with T.aman rice by different method of sowing	• To ensure optimum sowing time • To reduced cultivation cost	Ishurdi
585	Intercropping Chickpea with coriander for insect management	• To observe the repellent character in chickpea field • To find out the suitable planting geometry of coriander and chickpea intercropping	Joydebpur
586	Intercropping coriander with brinjal for insect suppression	• To minimize the insect population in brinjal and coriander intercropping • To find out the degree of suppression in brinjal field.	Joydebpur
587	Chilli and hybrid maize intercropping under different planting systems	To find out suitable combination of chilli and hybrid maize intercropping system for higher productivity	Joydebpur and Jessore

Sl No.	Research Title	Objective(s)	Location
588	Effect of sowing dates of sweet corn in potato + sweet corn intercropping	To find out suitable sowing date of sweet corn as an intercrop with potato	Joydebpur, Jamalpur and Burirhat
589	Intercropping bush bean and red amaranth with sweet corn	To find out the suitable intercropping system of bush bean and red amaranth with sweet corn.	Joydebpur
590	Intercropping of sweet gourd with brinjal at different Plant population	To find out the optimum population of Sweet gourd intercropped with Brinjal	RARS, Jamalpur
591	Intercropping Sesame and mungbean with turmeric at varying population	To find out the suitable intercrop combination of sesame/mungbean with turmeric for maximum return	Ishurdi
592	Effect of leafy vegetables and spices on the performance of potato and cucumber intercropping	To incorporate leafy vegetables and spices as additional crop in potato cucumber intercropping	Joydebpur and Burirhat
593	Intercropping lentil with brinjal at varying planting geometry	To find out suitable intercropping system of Brinjal with Lentil	Joydebpur
594	Performance of transplanting maize seedling as intercrop between potato rows	To observe the performance of transplanting maize into potato field.	Burirhat (Rangpur)
595	Inter mixed cropping of garden pea with onion	To find out the optimum population of garden pea as with inter mixed cropped with onion	Jamalpur
596	Intercropping of mustard with lentil	To increase the productivity	Rahmatpur Barisal
597	Effect of intercropping winter leafy vegetables with brinjal	To increase total productivity and economic return byintercropping system	Hathazari
598	Study on potato sunflower intercropping with relay mungbean	To increase total productivity	Joydebpur and Jamalpur
599	Intercropping garlic with brinjal	To find out the efficiency the productivity of intercropping garlic with brinjal.	Ishurdi Pabna
600	Intercropping chili with sweet gourd through fertilizer management	To find out the optimum fertilizer dose for chili + sweet gourd intercropping system for higher productivity and economic return	Burirhat Rangpur
601	Fertilizer management of hybrid maize after potato harvest	To evaluate the fertilizer requirement whether it can be reduced without yield reduction of hybrid maize potato intercropping.	Rangpur Burirhat
Unfavorable Eco-System			
Coastal Area			
602	Intercropping of mungbean with chilli at different planting system for coastal area	To increase the productivity and soil health through intercropping for coastal area	Patuakhali and Khulna

Sl No.	Research Title	Objective(s)	Location
603	Effect of time of sowing on plant stands, growth and yield of cowpea in coastal area	• To find out a suitable variety of cowpea for coastal area • To minimize salinity for survival plant and increase yield	Kalapara, Patuakhali and Khulna
604	Effect of post-flowering salinity and water stress on dry matter production and yield of soybean	• To find out the most sensitive post-flowering growth stage of soybean to salinity and water stress • To assess the yield reduction of soybean under salinity and water stresses at post flowering stage	Joydebpur
Drought			
605	Screening of Grass pea genotype(s) against drought stress	To identify suitable grass pea genotype(s) for drought tolerance	Joydebpur
High Temperature			
606	Impacts of sowing date induced temperature and management practices on development events and yield of mustard	To assess the vulnerability of mustard to climate change.	Joydebpur
607	Phenology, growing degree days, growth and yield of mustard varieties	To find out the accumulated growing degree days (GDD) of the different varieties of mustard for different development events for the future selection and development of mustard variety and to calibrate the InfoCrop crop Modelling.	Joydebpur
608	Phenology, growing degree days, growth and yield of wheat varieties	To find out the accumulated growing degree days (GDD) of the different varieties of wheat for different plant developmental events for the future selection and development of wheat variety and to generate necessary data base for calibrating DSSAT crop modeling.	Joydebpur
Charland			
609	Performance of different bushbean varieties in charland area	To find out suitable variety of bushbean for charland area	Tangail and Jamalpur char
610	Performance of Lentil varieties in the charland area	To select suitable BARI developed Lentil variety for char land area of Bangladesh	Charland of Tangail and Bogra
611	Performance of garlic varieties at different sowing date in char area of northern region	To find out the performance of different variety of garlic in different dates of sowing and to get maximum yield of garlic at farmers char areas of northern region.	Burirhat Rangpur
612	Fertilizer management of hybrid maize at char land eco-system	To find out optimum fertilizer dose of hybrid maize for char land eco-system.	Burirhat Rangpur
613	Adaptation of BARI released crop varieties in charland	To adapt at charland for higher productivity and validation of approved technologies.	Ishurdi, Pabna.

Sl No.	Research Title	Objective(s)	Location
Haor			
614	Improvement of existing cropping pattern fallow–boro–fallow rice with mustard–boro –T. aus, radish leaf-wheat-daincha, radish-pumpkin-daincha, potato-pumpkin-T. aus and garlic-mungbean in haor areas	To develop economically profitable and viable cropping pattern for replacing the existing Fallow-Boro-Fallow cropping pattern.	Sunamgonj
Hilly Area			
615	Intercropping lalshak with chilli under different planting system	• To find out suitable planting system of chilli & red amaranthas intercrop in hilly areas, • To increase total productivity and economic return through suitable combination	Khagrachari
616	Effect of fertilizer package on yield and yield contributing characters of maize varieties in hilly area	To find out suitable fertilizer packages of maize in hilly area.	Khagrachari
617	Effect of fertilizer packages on yield and yield contributing characters of onion in hill valley	To find out suitable fertilizer packages of onion in hilly area.	Khagrachari

PLANT BREEDING DIVISION

Maize			
618	Maintenance and seed increase of promising inbred lines of maize	To maintain and increase the seeds of the new exotic inbred lines for using in future breeding program	Gazipur
619	Recycling for development of maize inbred lines	Extraction of superior inbred lines through recycling	Gazipur
620	Advancing S_1 to S_2 generation of field corn and pop corn	Extraction of superior inbred lines through recycling	Gazipur
621	Advancing S_2 to S_3 generation of field corn, sweet corn and pop corn	Extraction of superior inbred lines through recycling	Gazipur& Jessore
622	Advancing S_3 to S_4 generation of field corn	Extraction of superior inbred lines through recycling	Gazipur
623	Advancing S_4 to S_5 generation of field corn, pop corn and baby corn	To extract superior inbred lines of field corn, pop corn and baby corn through recycling	Gazipur
624	Advancing S_5 to S_6 generation of field corn, baby corn and pop corn	Extraction of superior inbred lines through recycling	Gazipur & Ishurdi

Sl No.	Research Title	Objective(s)	Location
625	Advancing S_6 to S_7 generation of field corn	Extraction of superior inbred lines through recycling	Gazipur
626	Evaluation of inbred lines of field corn through Line × Tester method (Set I)	To determine the general combining ability and specific combining ability of the crosses for different traits and to explore heterotic hybrid combinations	Gazipur
627	Evaluation of inbred lines of field corn through Line × Tester method (Set II)	To determine the general combining ability and specific combining ability of the crosses for different traits and to explore heterotic hybrid combinations	Gazipur
628	Evaluation of inbred lines of field corn through Line × Tester method (Set III)	To determine the general combining ability and specific combining ability of the crosses for different traits and to explore heterotic hybrid combinations	Rahmatpur
629	Evaluation of inbred lines of field corn through Line × Tester method (Set IV)	To determine the general combining ability and specific combining ability of the crosses for different traits and to explore heterotic hybrid combinations	Gazipur
630	Evaluation of inbred lines of baby corn through Line × Tester method (Set V)	To determine the general combining ability and specific combining ability of the crosses for different traits and to explore heterotic hybrid combinations	Gazipur
631	Evaluation of inbred lines of pop corn through Line × Tester method (Set VI)	To determine the general combining ability and specific combining ability of the crosses for different traits and to explore heterotic hybrid combinations	Gazipur
632	Evaluation of test cross hybrids of baby corn through Line×Tester method (Set VII)	To determine the general combining ability and specific combining ability of the crosses for different traits and to explore heterotic hybrid combinations	Gazipur
633	Evaluation of test cross hybrids of baby corn through Line×Tester method (Set VIII)	To determine the general combining ability and specific combining ability of the crosses for different traits and to explore heterotic hybrid combinations	Gazipur
634	Evaluation of inbred lines of maize through North Carolina Design II (Set I)	To determine the general combining ability and specific combining ability of the crosses for different traits and to explore heterotic hybrid combinations	Gazipur
635	Evaluation of inbred lines of maize through North Carolina Design II (Set II)	To determine the general combining ability and specific combining ability of the crosses for different traits and to explore heterotic hybrid combinations	Gazipur
636	Evaluation of inbred lines of field corn through North Carolina Design II (Set III)	To determine the general combining ability and specific combining ability of the crosses for different traits and to explore heterotic hybrid combinations	Gazipur
637	Evaluation of test cross hybrids of pop corn through North Carolina Design II(Set IV)	To determine the general combining ability and specific combining ability of the crosses for different traits and to explore heterotic hybrid combinations.	Gazipur

Sl No.	Research Title	Objective(s)	Location
638	Combining ability and heterosis of maize inbred lines evaluated in three environments (Set I)	To determine the good general combining parents and for isolating good cross combinations in maize for evolving suitable hybrid(s) locally	Gazipur
639	Combining ability and heterosis study in maize (Set II)	To determine the good general combining parents and for isolating good cross combinations in maize for evolving suitable hybrid(s) locally	Gazipur
640	Evaluation of test cross field corn hybrids	To develop high yielding with relatively shorter hybrids.	Gazipur
641	Evaluation of test cross baby corn hybrids (Set I)	To develop baby corn hybrid	Gazipur
642	Evaluation of test cross baby corn hybrids (Set II)	To develop baby corn hybrid	Gazipur
643	Evaluation of field corn hybrids through North Carolina Design II (Set I)	To develop field corn hybrid	Gazipur
644	Evaluation of modified single cross hybrids of field corn (Set II)	To develop field corn hybrid	Gazipur
645	Evaluation of modified single cross hybrids of baby corn (Set III)	To develop baby corn hybrid	Gazipur
646	Evaluation of modified single cross hybrids of field corn (Set IV)	To develop field corn hybrid	Gazipur
647	Evaluation of field corn hybrids through Line × Tester method (Set V)	To develop field corn hybrid	Gazipur
648	Evaluation of Double cross maize hybrids at different locations	To evaluate double cross maize hybrids for their adaptability and stability of performance across different environments of Bangladesh	Gazipur, Jessore, Khagrachari & Ishurdi
649	Evaluation of promising maize hybrids at different agro-ecological regions of Bangladesh (Set I)	To evaluate the performance of promising hybrids, under different agro-ecological zones of Bangladesh and select better one(s)	Gazipur,Jamalpur, Hathazari, Ishurdi, Rahmatpur, Burirhat & Jessore
650	Evaluation of promising maize hybrids at different agro-ecological regions of Bangladesh (Set II)	To evaluate the performance of promising hybrids, under different agro-ecological zones of Bangladesh and select better one(s)	Gazipur, Rangpur& Barisal
651	Evaluation of promising maize hybrids at different agro-ecological regions of Bangladesh (Set III)	To evaluate the performance of promising hybrids, under different agro-ecological zones of Bangladesh and select better one(s)	Gazipur, Jamalpur,Rahmatpur&Burirhat

Sl No.	Research Title	Objective(s)	Location
652	Adaptive trials with promising maize hybrids at different locations followed by potato cultivation	To evaluate the yield potentiality as well as the stability of the hybrids followed by potato cultivation	Debigonj, Thakurgaon, Rangpur & Munshigonj
653	Adaptive trials with low water required white grain hybrid maize in three different locations	To evaluate the yield potentiality as well as the stability of the hybrids	Barisal, Khagrachari & Gazipur
654	Demonstration trials of BARI maize hybrid at northern districts under IAPP	To show the performance of the variety and recommended technologies to the farmers and others	Kurigram, Nilphamari, Rangpur & Lalmonirhat
655	Comparative yield trial of imported & local maize hybrids	To evaluate the yield potentiality as well as the stability of the imported and local hybrids	Gazipur, Barisal, Jamalpur, Rangpur, Ishurdi & Hathazari
656	Selection criteria, evaluation and associated genomic regions for low-Phosphorus (P) stress tolerance in maize	To examine the effects of exogenous PAs under PEG induced drought stress in maize	Gazipur
657	Modulation oxidative damage by polyamine in maize seedling under Polyethylene glycol induced drought stress	To purify Gly-I from maize seedlings	Gazipur
658	Purification of Glyoxalase-I from maize (Zea mays L.)	Establishing evaluation and phenotyping system for low-P stress tolerance in maize	Gazipur
659	Evaluation of inbred lines of excess soil moisture tolerant maize through Line × Tester method	To determine the GCA and SCA of crosses for different traits and to select suitable excess soil moisture tolerant hybrid	Jamalpur
660	Adaptive trials with low water required white grain hybrid maize in high barind tract	To test the performance of locally developed promising low water required hybrid	Rajshahi
661	Screening of maize inbred lines against salinity stress under field condition	To screen out available germplasm of maize for salt tolerance	Satkhira
662	Screening of maize hybrids against salinity stress under field condition	To screen out available germplasm of maize for salt tolerance	Satkhira

Sl No.	Research Title	Objective(s)	Location
663	Study of combining ability white grain quality protein maize	To isolate desirable inbred lines and better combining parents for development of suitable maize hybrid	Gazipur
664	Evaluation of test cross quality protein maize hybrids	Evaluation of test cross quality protein maize hybrids	Gazipur
665	Production of test cross hybrids in pop corn for evaluation of inbred lines following line tester method	To produce test cross hybrids for evaluation of inbred lines and to find out heterotic patterns and heterotic partners of inbred lines	Gazipur
666	Production of single cross field corn hybrids following diallel fashion	To estimate GCA of the inbred lines and SCA of the cross combinations and to find out heterotic patterns and heterotic partners of inbred lines	Gazipur
667	Production of modified single cross hybrids of field corn	To find out heterotic patterns and heterotic partners of inbred lines	Gazipur
668	Production of test cross hybrids in field corn for evaluation of inbred lines following line tester method	To produce test cross hybrids for evaluation of inbred lines and to find out heterotic patterns and heterotic partners of inbred lines	Gazipur
669	Production of single cross QPM hybrids (white and yellow) following diallel fashion	To estimate GCA of the inbred lines and SCA of the cross combinations and to find out heterotic patterns and heterotic partners of inbred lines.	Gazipur
670	Maintenance of the parental lines of BARI maize hybrids	To maintain the inbred lines of BARI released hybrids for further use	Rahmatpur, Jessore, Jamalpur & Gazipur
671	Seed production of the parental lines of BARI maize hybrids	To maintain the inbred lines of BARI released hybrids for further use	Thakurgaon, Pahartoli, Jessore, Burihat, Jamalpur, Ishurdi & Comilla
672	Seed production of BARI maize hybrids	To increase seed Stock of the BARI hybrid maize varieties to be used for demonstration and further use	Joydebpur, Jamalpur, Rahmatpur, Ishurdi, Jessore & Hathazari
673	Maintenance and seed production of BARI composite maize varieties	To increase seed stock of the BARI released composite maize varieties to be used for demonstration and further use	Comilla, Bogra,Dinajpur, Labukhali & joydebpur
674	Evaluation of CIMMYT hybrids in different agro-ecological regions	To test the performance of CIMMYT developed hybrids, under different agro-ecological zones of Bangladesh and select better one (s)	Gazipur, Jamalpur, Hathazari, Ishurdi, Rahmatpur, Burirhat &Jessore

Sl No.	Research Title	Objective(s)	Location
675	Phenotyping of the test crosses under heat stress at Jessore	To evaluate the performance of some maize hybrids and to identify high yielding one(s) in high temperature stress condition in Bangladesh	Jessore
676	Phenotyping of the test crosses under heat stress at Ishurdi	To evaluate the performance of some maize hybrids and to identify high yielding one(s) in high temperature stress condition in Bangladesh	Ishurdi
677	Phenotyping of the test crosses under optimal temperature at Gazipur	To evaluate CIMMYT maize hybrids and to identify better performing hybrids in optimal condition in Bangladesh	Gazipur
678	Phenotyping of the test crosses under optimal temperature	To evaluate the CIMMYT maize hybrids and to identify high yielding one(s) in Bangladesh at optimal condition	Rahmatpur
679	Demonstration of selected HTMA hybrids at different agro-ecological conditions	To evaluate CIMMYT hybrids under optimal temperature and in across agro-ecological conditions	Gazipur, Rahmatpur, Burirhat & Jessore
680	Evaluation of CIMMYT white grain hybrids	To evaluate the CIMMYT maize hybrids and to identify high yielding one(s) in Bangladesh	Gazipur, Jamalpur & Jessore
681	Evaluation of CIMMYT yellow grain hybrids	To evaluate the CIMMYT maize hybrids and to identify high yielding one(s) in Bangladesh	Gazipur & Burirhat
682	Evaluation of promising maize hybrids at different agro-ecological regions	To test the performance locally developed single cross hybrids at different agro-ecological regions in Bangladesh and select widely adapted hybrids	On Station
683	Demonstration of HTMA	To develop high yielding and heat tolerant maize hybrids	On Station
684	Comparative yield trial of imported and local maize hybrids	To find out the suitable maize hybrid varieties in the Bangladesh condition.	On Station
685	Evaluation of early short stature and high yielding double cross hybrids of field corn	To evaluate some BARI developed Double cross hybrids of maize	RARS, Ishwardi
686	Evaluation of CIMMYT hybrids in different agro-ecological regions	To evaluate CIMMYT developed hybrids in different locations in Bangladesh for higher yield as well as wider adaptability	RARS, Ishwardi
Barley, Millets and Sorghum			
687	Confirmation of F_1 generation of barley	To select individual plant of hull-less, early and high yield potential progenies	Gazipur
688	Evaluation and selection in different filial generations (F_2-F_6)	To grow and select the desirable families and individual plants in different filial generation for further evaluation	Gazipur
689	Preliminary yield trial of barley	To evaluate the performance and to select desirable barley lines	Gazipur
690	Advanced yield trial of hull-less barley	To evaluate the performance and to select desirable barley lines	Rahmatpur Ishurdi & Gazipur

Sl No.	Research Title	Objective(s)	Location
691	Regional yield trial of hull-less barley	To evaluate the performance and to select desirable barley lines	Gazipur & Ishurdi
692	Evaluation of barley varieties for duel purpose (grain and fodder)	To evaluate the BARI released barley varieties for dual purpose (grain and fodder) use	Gazipur
693	International barley yield trial under high input conditions	To identify suitable barley lines under Bangladesh condition	Gazipur
694	International naked barley yield trial	To identify suitable barley lines under Bangladesh condition.	Gazipur
695	International barley observation nursery-high input conditions	To identify suitable barley lines under Bangladesh condition	Gazipur
696	International naked barley observation nursery (INBON)	To identify suitable barley lines under Bangladesh condition	Gazipur
697	Breeder seed production of barley	To produce Breeder Seeds of released barley varieties	Gazipur, Burirhat & Ishurdi
698	Breeder seed production of millets	To produce Breeder Seeds of released foxtail (kaon) and proso millet (cheena) varieties	Gazipur Burirhat & Ishurdi
699	Seed increase of selected finger millets germplasm	To increase seeds of germplasm for future breeding program	Gazipur
700	Seed increase of selected foxtail millets germplasm	To increase seeds of germplasm for future breeding program	Gazipur
701	Seed increase of selected pearl millets germplasm	To increase seeds of germplasm for future breeding program	Gazipur
702	Seed increase of selected sorghum millet germplasm	To increase seeds of germplasm for future breeding program	Gazipur
703	Advance yield trial of hull less barley	To find out the suitable genotypes in large plot yield trial	RARS, Ishwardi
704	Regional yield trial of hull less burley	To reveal the most suitable highly adaptive and high yielding barley variety	RARS, Ishwardi
705	Breeder seed production of barley	To distribute seeds to farmers and NGOs	RARS, Ishwardi
706	Breeder seed production of millets	To produce breeder seeds of released millets varieties	RARS, Ishwardi
707	Breeder seed production of barley	• To maintain and increase seed of the released variety • Breeder seed will be produced to supply seed producing agency like BADC, DAE or NGOS and • Distribution of quality seeds directly to the farmer	Gazipur

Sl No.	Research Title	Objective(s)	Location
708	Breeder seed production of millets	• To maintain and seed increase of the released variety • Breeder's seed will be produced to supply seed producing agency like BADC, DAE or NGOS • Distribution of quality seeds directly to the farmer	Gazipur
709	Seed increase of selected finger millets germplasm	To increase seeds of germplasm for future breeding program.	Gazipur
710	Seed increase of selected foxtail millets germplasm	To increase seeds of germplasm for future breeding program.	Gazipur
711	Seed increase of selected pearl millets germplasm	To increase seeds of germplasm for future breeding program.	Gazipur
712	Seed increase of selected sorghum millet germplasm	To increase seeds of germplasm for future breeding program.	Gazipur
Molecular Genetics and Genetic Engineering			
713	PCR-based detection and characterization of tomato leaf curl and other related Gemini viruses in Bangladesh	To characterize Gemini virus strains in different crops with emphasis to tomato	Biotechnology Lab, Gazipur
714	Transformation of tomato for broad spectrum resistance against leaf curl viruses	To develop transformation protocol of tomato for broad spectrum resistance against leaf curl viruses	Biotechnology Lab, Gazipur
715	Development of an efficient genetic transformation system for eggplant (*Solanum melongena* L.)	To investigate an efficient genetic transformation system for future development of diseases and pest resistant eggplant varieties	Biotechnology Lab, Gazipur
716	Marker-assisted transfer of salt tolerance *Nax* genes in Bangladeshi wheat varieties	To introgress the salt-tolerant *Nax* genes into selected Bangladeshi wheat varieties through marker assisted back crossing	Biotechnology Lab, Gazipur
717	Molecular and biochemical characterization of Bangladeshi wheat varieties for bread making quality	To identify high molecular weight glutenin subunit of wheat varieties grown in Bangladesh in relation to the bread making quality both in protein and molecular level using SDS-PAGE and PCR based techniques	Biotechnology Lab, Gazipur
718	Assessment of stress-tolerance attributes in wheat using gene-specific molecular markers	To molecular characterize of rye chromosome translocations in twenty two local and two Australian wheat varieties	Biotechnology Lab, Gazipur
719	Identification of nucellar and zygotic seedlings of sweet orange (BARI Malta-1) using molecular marker	Identification of nucellar seedlings for true to type and zygotic seedlings for F_1 hybrid. Regeneration frequency of nucellar and zygotic seedlings	Biotechnology Lab, Gazipur

Sl No.	Research Title	Objective(s)	Location
720	Development of disease resistant, lea (low erucic acid) quality BARIsarisha-14 through marker-assisted backcrossing	Introgressionof Fusarium wilt resistance and low erucic acid quality genes into BARI sarisha-14 through marker-assisted selection	Biotechnology Lab, Gazipur ORC, Gazipur

BIOTECHNOLOGY DIVISION

Protocol Development and Micro propagation			
721	Standardization of protocol for advanced lines of strawberry and their large scale multiplication	To develop a protocol for mass propagation of introduced lines of strawberry	Biotechnology Lab, Gazipur
722	*In vitro* regeneration of okra (*Abelmoschus esculentus* L moench.)	To investigate the best plant growth regulators and their concentrations on regeneration of okra.	Biotechnology Lab, Gazipur
723	Study of comparative regeneration efficiency of different potato varieties	To study regeneration efficiency of potato varieties	Biotechnology Lab, Gazipur
724	Standardization of protocol, *in vitro* production of BARI Kola-3 & BARI Kola-4 plantlets and their validation in hilly areas	• To standardize protocolfor *in vitro*production of BARI Kola-3 and BARI Kola-4 • To validate the performance of tissue cultured banana plantlets in hilly areas • To improve the knowledge & skill of farmers on tissue cultured banana cultivation in hilly areas and private entrepreneurs on tissue culture banana plantlets production	Biotechnology Lab, Gazipur, ARS, Ramgarh, and ARS, Raikhali
725	Rescue of Amritsagar banana from extinction through biotechnological approaches	• Collection and *in vitro* propagation of Amritsagar banana variety • To prevent the extinction of Amritsagar banana variety and reintroduce its cultivation at farmers level	Biotechnology Lab
726	*In vitro* regeneration of chickpea (*Cicer arietinum* l.)	To develop an efficient regeneration protocol for chickpea for future genetic transformation work	Biotechnology Lab
727	Development of an efficient regeneration system of banana	To develop an efficient regeneration protocol of banana for future transformation work	Biotechnology Lab
728	Development of *in vitro* regenerationtechnique for gerbera	To find out a suitable technique for *in vitro* propagation of Gerbera and their adaptation at green house and nursery conditions	Biotechnology Lab
729	Production of wheat double haploids through wheat x maize crossing	To develop an efficient doubled haploid production system for wheat breeding in Bangladesh	Biotechnology Lab
730	Regulatory trial with transgenic potato under CFT	To establish substantial equivalence between the transgenic and conventional lines meaning the transgenic lines are not different from their counterpart due to insertion of new genes	BARI
731	Breeder seed production of *Bt* brinjal	Seed dissemination across the country	BARI

Sl No.	Research Title	Objective(s)	Location
732	Confined field trial of LBR potato at regional agricultural research station Hathazari, Chittagong	To select superior clone for yield stability and disease resistant under Chittagong Condition	RARS, Hathajari
733	Validation trial of tissue cultured plantlets of BARI Malta-1	To see the field performance of tissue cultured plantlets of BARI Malta-1 compared to grafted one	ARS, Ramgarh and ARS, Raikhali.
734	Validation trial of tissue cultured plantlets of jackfruit	To see the field performance of tissue culture saplings of Jackfruit compared to grafted and seeded ones	HARS, Khagrachari, ARS, Ramgarh, Hathazari, Akbarpur, Sylhet and Chittagong
735	Generation advancement of rest Bt brinjal lines	To release new Bt brinjal varieties	Biotechnology Research field, Gazipur
736	Breeder seed production of Bt brinjal varieties in Gazipur	To multiply of good quality seed of the newly released Bt brinjal varieties	Biotechnology Research field, Gazipur
737	Breeder seed production of BARI Bt begun 1 in Rangpur	To multiply of good quality seed BARI Bt begun 1	RARS, Burirhat, Rangpur
738	Breeder seed production of BARI Bt begun 2 in Barisal	To multiply of good quality seed BARI Bt begun 2	RARS, Barisal
739	Breeder seed production of BARI Bt begun 3 in Jamalpur	To multiply of good quality seed BARI Bt begun 3	RARS, Jamalpur
740	Breeder seed production of BARI Bt begun 4 in Pabna	To multiply of good quality seed BARI Bt begun 4	RARS, Ishurdi, Pabna
741	Quantification of cry1ac protein in newly released four Bt brinjal varieties	To quantify of the Cry1Ac protein in the fruit tissues of the newly released transgenic brinjal plants	Biotechnology Lab, Gazipur
742	Detection of RB gene in selected transgenic late blight resistant hybrid clones through PCR	To generate molecular data of those clones, it needs to be done PCR confirmation for RB gene integration of desired clones	Biotechnology Lab, Gazipur

SOIL SCIENCE DIVISION

Physical Aspect of Soil Management			
743	Assessment of leaching loss of nutrients and water requirement of wheat through lysimetric studies	• To find out the water requirement of wheat estimating Kc and Et values using lysimeter • To quantify the leaching loss of nutrients	Gazipur
744	Effect of tillage methods and integrated nutrient management on soil properties and productivity of Mustard- Mungbean-T. aus-T.aman cropping pattern	• To observe the effect the tillage practices and integrated nutrient management on soil properties • To increase the productivity of the said cropping sequence	Gazipur, Rahmatpur and Bogra

Sl No.	Research Title	Objective(s)	Location
745	Effect of tillage methods and conventional compost formulated IPNS package on the productivity of Radish-Pea-Okra-T. aman rice cropping patterns and sustainability of soil health	• To find out the suitable dose of compost and chemical fertilizers for maximizing the yield of the pattern • To know the effect tillage methods and compost based IPNS package on the improvement of soil health	Gazipur and Jessore
746	Measurement of soil physical properties for central research farm of BARI	• To determine the soil physical properties of BARI farm • To provide information on crop suitability based on soil physical environment	HRC Farm, Gazipur
747	Effect of conservation tillage practices and IPNS based fertilizer management on the productivity of Potato-Jute- T. aman cropping pattern	• To evaluate effect of tillage methods and IPNS based fertilizer management on the productivity of the pattern • To observe the changes in soil properties	RARS, Jessore
748	Effect of biochar and bioslurry on soil moisture conservation and yield of wheat	• To conserve soil moisture and to increase soil carbon content • To sustain crop yield	RARS, Jamalpur
749	Effect of tillage methods and residue management on soil properties and sustainable yield of Potato- Maize- T.aman rice cropping pattern	• To observe the effect the tillage practices and residue management on soil properties • To increase the productivity of the said cropping sequence	Gazipur, Jamalpur
750	Effect of conservation tillage and residue management on soil moisture retention and productivity of Chickpea- Maize- T.aman rice cropping pattern in Barind soil	• To observe the effect the tillage practices and residue management on soil moisture retention • To make the best use of residual soil moisture in Barind tract's. • To increase the crop productivity of the pattern	Barind, Rajshahi
751	Effect of raised bed planting and potassium application on the mitigation of soil salinity and yield of maize	• To test the possibility that salinity damage can be reduced by elevating K fertilization rate • To study the effects of salinity and K fertilization interactions on maize yield and nutrient uptake • To study K dynamics in soil as a function of the salinity of the irrigation water	Noakhali and Patuakhali
752	Effect of different soil moisture regime and nutrient management on soil physical properties and yield of broccoli	• To develop irrigation scheduling under given nutrient management options for higher use efficiency and yield • To observe the changes in soil properties	Gazipur

Sl No.	Research Title	Objective(s)	Location
753	Effect of legume-vegetative cover crop in reducing soil loss and improving crop productivity in hilly region	• To find out the effect of legume-vegetative cover crop on soil conservation • To increase the productivity of hill slope by using LCC and VCC • To minimize rate of soil loss through utilization of LCC and VCC	HARS, Ramgarh
754	Effect of nitrogenous fertilizer and irrigation frequency on growth and yield of chilli in Chittagong region	• To find the appropriate dose of nitrogenous fertilizer for maximizing yield • To find out the duration of irrigation interval for the highest yield	RARS, Hathazari, Chittagong
755	Effect of IPNS on physico-chemical properties of soil and yield of mango	• To observe the changes in physical and chemical properties of soil • To find out the influence of organic fertilizer on Mango; and • To develop a balanced fertilizer recommendation for maximizing the yield of Mango	RHRS, Chapai Nawabgonj
Chemical Aspect of Soil Management			
756	Integrated nutrient management for sustaining soil fertility and yield of Wheat-Mungbean-T.aman cropping pattern	• To find out judicious fertilizer recommendation for Wheat-Mungbean-T.aman cropping pattern for sustainable yield • To monitor soil health after each cropping cycle of the pattern; and • To estimate the uptake of different major nutrients and make a balance sheet for each of the nutrients	Ishurdi and Jessore
757	Integrated nutrient management for sustaining soil fertility and yield of Mustard-Mungbean-T.aman cropping pattern	• To find out judicious fertilizer recommendation for Wheat-Mungbean-T.aman cropping pattern for sustainable yield • To monitor soil health after each cropping cycle of the pattern; and • To estimate the uptake of different major nutrients and make a balance sheet for each of the nutrients	Ishurdi and Jessore
758	Long-term integrated nutrient management for sustaining soil fertility and yield of Maize-Mungbean-T.aman cropping pattern	• To find out judicious fertilizer recommendation for Maize-T.aman cropping pattern for sustainable yield • To monitor soil health after each cropping cycle of the pattern; and • To estimate the uptake of different major nutrients and make a balance sheet for each of the nutrients	Joydebpur
759	Evaluation of physical, chemical and microbiological soil properties of central research farm of Bangladesh Agricultural Research Institute	• To assess the physical properties of different research blocks • To evaluate the essential nutrient status of different research blocks; • To determine the status of microbial population in different research blocks; and • To find out the heavy metal status of different research blocks	Joydebpur

Sl No.	Research Title	Objective(s)	Location
760	Influence of fertilizers on nutrient contents and biomass yield in medicinal plant *Stevia rebaudiana* Bert.	• To recommend of fertilizer application on the yield and nutrient content in stevia plant; and • To find out the optimum dose of NPKS for maximize yield of stevia	Joydebpur
761	Development of fertilizer recommendation for summer tomato	• To know the response of summer tomato to added nutrients • To find out the optimum dose of N, P, K and S for yield maximization of summer tomato; and • To develop a package of fertilizer recommendation for summer tomato	Joydebpur
762	Parameterization of APSIM model for different maize varieties under different N levels and simulating their potential yield in Bangladesh	• To parameterize and validate the APSIM model (Keating *et al*, 2003) in respect to N in soil and plant; and • To evaluate N effect on phenology, yield and yield components and N uptake of maize	Joydebpur
763	Efficacy of vermicompost and convectional compost on chilli cultivation through IPNS basis	• To study the effect of vermicompost and conventional compost on the growth and yield of chilli • To determine the optimum rate of vermicompost and conventional compost for chilli cultivation; and • To minimize the use of chemical fertilizer in presence of vercompost and conventional compost	Joydebpur
764	Integrated nutrient management for sustaining soil fertility and yield of Cowpea-T.Aus-T.Aman rice cropping pattern for Chittagong region	• To find out judicious fertilizer recommendation for potential cropping patterns for specific location for sustainable yield • To monitor soil health after each cropping cycle of the pattern; and • To estimate the uptake of different major nutrients and make balance sheet for each of the nutrients	RARS, Hathazari
765	Effect of potassium and sulphur on onion and chilli intercrops in Mirershawrai series soils of Chittagong region	• To study the effect of potassium and sulphur on growth and yield of onion and chilli grown as intercrops; and • To study the uptake of nutrients by onion and chilli as influenced by potassium and sulphur levels	RARS, Hathazari
766	Survey of soil nutrient status of RARS, Ishurdi station	• To collect soil Sample from all blocks of RARS, Ishurdi • To determine soil nutrient status; and • To maintain optimum level of soil fertility	All the blocks of RARS, Ishurdi
767	Effect of intigrated nutrient management on the yield and quality of sweet pepper	• Effect of organic fertilizer 0n the yield and quality of sweet pepper • Maximizing and sustaining yield of sweet pepper using of thus reducing use of chemical fertilizers	Joydebpur and OFRD, Rangpur

Sl No.	Research Title	Objective(s)	Location
768	Response of bio fertilizer and chemical fertilizers on groundnut at Char areas.	• To study the effect of bio-fertilizer at different NPKSZn levels • To reduce the use of N-fertilizer for groundnut cultivation	Char Nowbhanga, Jamalpur
769	Effect of charred materials on soil properties, grain and biomass yields of maize	• To asses the nutrient availability to plant • To determine the crop productivity by using charred materials • To compare the effect of inorganic and organic amendments on fertility level	RARS, Jamalpur
770	Response of different rates of nutrient on chilli at char areas of Jamalpur	• To find out the optimum rates of nutrients for high yield of chilli at char areas of Jamalpur region • To minimize the use of chemical fertilizer in presence of charred materials or cowdung • To study the uptake of nutrients by chilli as influenced by cowdung and charred materials	Char Nowbhanga, Jamalpur
771	Estimation of fertilizer requirement for four crop based cropping pattern	• To develop a fertilizer recommendation for four crop based cropping pattern • To Maximize the yield of four crop based cropping pattern through nutrient management • To estimate the uptake and nutrient balance of the above cropping pattern	Joydebpur and Rajshahi
772	Response of different growth stages and yield of wheat to foliar application of fertilizers under saline areas of Bangladesh	• To investigate the efficiency of foliar application of fertilizers for yield and yield components of wheat when applied at different growth stages • To develop combined fertilizer application method for efficient use of fertilizers • To know about the effect of different treatments on soil physical and chemical properties	ARS, Benarpota, Satkhira
773	Effect of salinity on growth and yield of tomato under different salinity levels in a special system of Slope plantation method	• To examine the yield and quality of field-grown tomatoes using various levels of saline water • To study the effect of different types of fertilizers on the yield and fruit quality of tomatoes grown under saline conditions of Bangladesh • To know the effect of different plantation methods on salinity levels of soil over time	ARS, Benarpota, Satkhir
774	Effect of IPNS on the yield of crops and nutrient uptake of Cauliflower-Amaranth-T. aman cropping pattern	• To maintain or enhance soil productivity through a balanced use of mineral fertilizers combined with organic sources of plant nutrients; • To improve the efficiency of plant nutrients, thus limiting losses to the environment • To increase and sustain crop yield	Joydebpur and ARS, Bogra
775	Effect of IPNS for sustaining soil fertility and yield of crops on Maize-Mungbean-T. aman cropping pattern	• To maintain or enhance soil productivity through a balanced use of mineral fertilizers combined with organic and biological sources of plant nutrients; • To improve the efficiency of plant nutrients, thus limiting losses to the environment • To increase and sustain crop yield	Joydebpur and ARS, Bogra

Sl No.	Research Title	Objective(s)	Location
776	Integrated Nutrient Management for Sustainable Production and Quality of onion	• To determine the responses of onion to INM based treatments • To enhance soil fertility • To increase yield and quality of onion • To assess the nutrient uptake determine net changes in the soil nutrient balance	Joydebpur
777	Estimation of fertilizer requirement for four crop based cropping pattern	• To develop a fertilizer recommendation for four crop based cropping pattern • To maximize the yield of four crop based cropping pattern through nutrient management • To estimate the uptake and nutrient balance of the above cropping pattern	RARS, Jamalpur &Jessore
778	Estimation of fertilizer requirement for four crop based cropping pattern	• To develop a fertilizer recommendation for four crop based cropping pattern • To Maximize the yield of four crop based cropping pattern through nutrient management • To estimate the uptake and nutrient balance of the above cropping pattern	RARS, Jamalpur & Jessore
779	Estimation of fertilizer recommendation for Muskmelon	• To know the response of Muskmelon to added nutrients • To find out the optimum dose of N, P, K and S for yield maximization of Muskmelon; and • To develop a package of fertilizer recommendation for Muskmelon	OFRD Jamalpur and Patuakhali
780	Use of vermicompost for improving the yield and nutritional quality of cabbage	• To study the effect of vermicompost on the growth and yield of cabbage • To assess the effect ofvermicompost on the nutritional quality of cabbage	Joydebpur, Rangpur and Jessore
Micronutrient Aspect of Soil Management			
781	Effects of liming on soil pH and nutrient availability in soils	• To evaluate the effect of lime on the availability of boron; and • To know the pH values where boron becomes more available under Bangladesh condition	
782	Determination of critical limit of zinc for maize cropping	• To evaluate the available Zn status of Calcareous and Non-Calcareous soils using different extraction reagents and to correlate extractable Zn with soil properties, dry matter yield and Zn uptake by maize; and • To determine and update of critical limit of zinc in different soils for maize	
783	Determination of heavy metal status of different vegetables from industrially polluted and non-polluted areas	• To study the accumulation of heavy metals in vegetables • To correlate the heavy metals uptake with essential plant nutrients; and • To compare the heavy metal status of vegetables grown in polluted and non-polluted areas	

Sl No.	Research Title	Objective(s)	Location
784	Assessment of arsenic contamination in soils, water and crops of different agro- ecological zones of Bangladesh	• To determine the arsenic status in soils, water and crops; and • To study the relationship of arsenic availability with soil characteristics	
785	Effects of phosphorus in reducing arsenic availability in soils and arsenic uptake by maize and rice	• To evaluate the role of phosphorus (P) in arsenic (As) availability; • To find out the optimum dose of in reducing As uptake by maize and rice; and • To mitigate As contamination and to improve crop quality	
786	Screening of zinc rich wheat genotypes	• To determine the content of Zn in grains and straw with corresponding soils of wheat genotypes/cultivars; and • To identify Zn rich ones	
787	Remediation of heavy metals polluted soil from industrial effluents polluted areas through organic amendments	• To evaluate the efficiency of organic amendments as an accumulator for heavy metal in contaminated soil • To determine the uptake pattern of heavy metal in the root, shoot and grain fruit^{-1} system of tested crop; and • To quantify the heavy metal status of polluted soils	
788	Effectiveness of soil and foliar applications of zinc and boron on the yield of tomato	• To identify a suitable combination of Zn and B fertilization for tomato production; and • To compare the effects of the method of micronutrient application foliar vs. soil fertilization on plant growth and yield of tomato	
789	Requirement of zinc and boron for the Potato-Maize-T.aman rice cropping pattern	• To evaluate the requirement zinc and boron in the Potato-Maize- T. aman rice cropping pattern • To observe the residual effect of zinc and boron; and • To find out the uptake and balance of nutrients	
790	Effect of Molybdenum on yield and yield components of different pulse crop	• To evaluate the response of molybdenum of different pulse crops; and • To identify the pulse crop which more responsive to Mo	
791	Response of potato to zinc application	• To determine the optimum dose of zinc for potato production	
792	Effect of foliar application of molybdenum on the yield of cauliflower	• To know the response of cauliflower on foliar application of molybdenum for higher yield. • To find out the optimum dose of molybdenum for maximizing the yield of cauliflower	
793	Effect of boron fertilization on groundnut in high Ganges river floodplain soils	• To find out the requirement of boron in relation to yield and yield contributing characters • To estimate the uptake of boron by groundnut	

Sl No.	Research Title	Objective(s)	Location
794	Response of blackgram to boron in high Ganges river floodplain soils	• To find out the optimum dose of boron for specific black gram variety • To find out the uptake of boron in relation to yield by black gram	
795	Zinc-iron relationship in wheat plant grown under drought stress condition	• To know the effect of foliar application of zinc and iron and their combination on the yield of wheat under drought stress condition; and • To know the concentration and total uptake of these nutrients in grains of wheat	
Microbiological Aspect of Soil Management			
796	Study on collection, isolation and screening of indigenous *Rhizobium* strains, arbuscular mycorrhizal fungi, *Azotobacter,* phosphate solubilizing bacteria and *Azospirillium* strain(s) for different crops from different AEZs of Bangladesh	• To select the best indigenous *Rhizobium* strain(s), arbuscular mycorrhizal fungi, *Azotobacter,* phosphate solubilizing bacteria and *Azospirillium* strain(s) from different AEZs of Bangladesh • To prepare biofertilizer for different legume and other crops	Rahmatpur, Jessore, Joydebpur, Hathazari, Rajshahi, Dinajpur, Rangpur, Ishurdi, Khagrachari, Raikhali, Patuakhali, Sathkhira, Noakhali, Cox's Bazar, Sylhet, etc.
797	Assessment of Arbuscular mycorrhizal association in fruit plants	• To study the percent root colonization and AM fungal spore population in the rhizosphere soil • To produce suitable AM inoculum for future use in different crops	Rajshahi, Rahmatpur, Burirhat, Jessore
798	Integrated use of Arbuscular mycorrhiza and chemical fertilizer in producing vegetables, spices and fruit crop saplings	• To study the effect of combined application of arbuscular mycorrhiza and chemical fertilizer on the performance of vegetables, spices and fruit crop seedlings • To reduce the use of chemical fertilizer	Joydebpur
799	Effect of Arbuscular mycorrhiza and toxic metals on different vegetables	• To know the effect of AM inoculation on the uptake of toxic metals by different vegetables treated with different concentration of toxic metals • To reduce the toxic metals through the use of arbuscular mycorrhiza	Joydebpur
800	Effect of *Azotobacter* on the growth and yield of onion	• To study the role of *Azotobacter* on the growth and yield of onion • To find out the nutrient uptake as influenced by *Azotobacter*	Joydebpur
801	Bio control of foot and root rot disease of pulse and oilseed crops by dual inoculation with *Rhizobium* and arbuscular mycorrhiza	• To observe the effect of pre-inoculation of AM and *Rhizobium leguminosarum* on the disease resistance of pulse and oilseed crops infected by pathogen • To produce healthy and vigorous seedlings of different pulse and oilseed crops	Joydebpur

Sl No.	Research Title	Objective(s)	Location
802	Effect of Arbuscular mycorrhizal fungi and phosphorus on vegetables, spices and legume crops	• To study the effect of combined use of arbuscular mycorrhiza and phosphorus on the performing of vegetables spices and fruit crops under field condition • To reduce to use of P-fertilizer for vegetables, spices and legume crops	Tomato: Ishurdi, Jamalpur, Rahmatpur Bogra; Faridpur, Rahmatpur, Joydebpur; Bogra, Joydebpur
803	Effect of biofertilizer, vermicompost and chemical fertilizers on gardenpea, bushbean and groundnut	• To study the effect of bio-fertilizer and vermicompost on yield of bushbean and gardenpea • To find out nutrient uptake as influence by bio-fertilizer and vermicompost • To reduce the chemical fertilizer in bushbean and gardenpea cultivation	Bushbean: Ishurdi, Rahmatpur Gardenpea: Ishurdi, Rahmatpur Groundnut, Joydebpur, Jamalpur
804	Study on the rhizobial population and other soil microorganism status of different soils (AEZs) of Bangladesh	• To study the native rhizobial and other soil microorganism population of different soils of Bangladesh • To know the effect of climate change on the rhizobial population and other soil microorganisms	Different AEZs of Bangladesh.
805	Study on collection, isolation and screening of stress tolerant strains of *Rhizobium*	• To isolate acid, salt and stress tolerant *Rhizobium* strain(s) for different legume crops; and • To prepare biofertilizer for different crops	Different AEZs of Bangladesh
806	Effect of Arbuscular mycorrhizal inoculation on pulse and oilseed crops at different salinity levels	• To evaluate the role of AMF and the percentage of AM colonization on growth and nutrient uptake of respective crop under salinity stress condition. • To observe the effect of AM under salinity stress condition. • In order to further understand salt tolerance mechanisms in inoculated plants	Joydebpur
807	Effect of *Trichoderma harzianum* and Arbuscular mycorrhizal fungi on growth and disease management in vegetable and pulse crops	• The aim of this study was to investigate the potential of AMF and *Trichoderma harzianum*, alone and in dual combination on different growth parameters and disease management in vegetable and pulse crops	Joydebpur
808	Effect of cropping pattern and seasonal variation on soil microbial biomass carbon and nitrogen in different AEZs soil of Bangladesh	• To determine soil microbial biomass carbon and nitrogen in different cropping pattern • To find out the seasonal variation of microbial biomass carbon and nitrogen and • To monitor the soil fertility status	Joydebpur
809	Response of groundnut varieties to elite strains of *Bradyrhizobium*	• To study the effect of *Bradyrhizobium* inoculation and varieties at different locations and	Gazipur, Jamalpur, Rahmatpur, Kishoregonj

Sl No.	Research Title	Objective(s)	Location
		• To popularize the use of *Bradyrhizobium*inoculant instead of applying urea-N for groundnut production	
810	Response of chickpea varieties to elite strains of *Rhizobium*	• To study the response of *Rhizobium* inoculation with different varieties of chickpea • To study the effect of *Rhizobium* inoculation and varieties at different locations and • To popularize the use of *Rhizobium* inoculant instead of applying urea-N for chickpea production	Gazipur, Jessore, Ishurdi, Barind (Rajshahi)
811	Effect of soils and region on decomposition rates of different organic materials	• To evaluate the variation of the decomposition rate of different organic materials under different soil types • To study the variation of decomposition by biochemical quality of organic materials in different soil types	Joydebpur, Jessore and Dinajpur
812	Integrated nutrient management for sustaining soil fertility and performance of wheat-mungbean-t. *aman* cropping pattern at Ishwardi	• Find out sustainable fertilizer recommendations for Wheat-Mungbean-T.aman cropping pattern, • To monitor soil health after each cropping pattern and to estimate uptake of different nutrients and to make a balance sheet for each nutrient	RARS, Ishwardi
813	Integrated nutrient management for sustaining soil fertility and performance of mustard-mungbean-t. *aman* cropping pattern at Ishwardi	To determine optimum fertilizer doses and nutrient balance using nutrient management approach	RARS, Ishwardi
814	Response of chickpea to *rhizobium* inoculation at different npkszn levels	To find out the efficiency of bacterial inoculum and chemical fertilizers on chickpea	RARS, Ishwardi
815	Response of chickpea varieties to elite strains of *rhizobium*	To study the response of inoculation with different varieties	RARS, Ishwardi
816	Response of blackgram to boron fertilization in high ganges river floodplain soils	To find out the requirement of boron in relation to nutrient uptake and yield of black gram in this region	RARS, Ishwardi
817	Effect of molybdenum on yield and yield components of different pulse crop	To study the response of molybdenum to pulse crops and to find out the optimum dose for yield maximization	RARS, Ishwardi

ENTOMOLOGY DIVISION

818	Survey of Insect Pests Attacking Wheat and Determination of Their Damage Potentials	• To document the damage severity of insect pests attacking wheat. • To identify the natural enemies of insect pests of wheat	Gazipur, Rangpur Dinajpur

Sl No.	Research Title	Objective(s)	Location
819	Survey of Insect Pests Attacking Maize and Determination of Their Damage Potentials	• To document the damage severity of insect pests attacking maize • To identify the natural enemies of insect pests of maize	Gazipur Dinajpur
820	Development of Bio-Rational Based ManagementApproach (Es) Against Cob Borer, *Helicoverpazea* Attacking Maize	To develop environment friendly integrated management tactic(s) against cob borer attacking maize	Gazipur
821	Evaluation Of Different Managment Packages Against Flower Thrips and Pod Borers Of Mungbean Both In Farmer's Field and On Station Conditions	• Developing environment friendly effective and economic management approach(es) against insect pests of mungbean • Producing toxic synthetic insecticide free mungbean	Gazipur &Rajshahi
822	Evaluation Of Different Management Packages Against Flower Thrips and Pod Borers Of Mungbean (*Vignaradiata* L.)	To evaluate the efficacy and profitability of different management packages comprising white sticky trap, bio-pesticide and synthetic insecticides against flower thrips and pod borers of mungbean	Ishurdi, Pabna
823	Evaluation of Some Management Packages Against Pod Borer, *Helicoverpa Armigera* Infesting Chickpea In Farmer's Field and on Station Conditions	To evaluate different biorational based IPM packages against pod borer, *Helicoverpaarmigera* attacking chickpea	Gazipur &Rajshahi
824	Screening of rapeseed and mustard entries (*brassica* spp.) Against aphid (*lipaphis erysimi* kalt.)	• To find out aphid resistant/tolerant rapeseed genotype(s) • To observe the peak infestation period of aphid in different mustard genotypes	Gazipur
825	Role of Honey Bee on The Yield and Yield Contributing Characteristics of Bari Sarisha-14	To assess/quantify the yield increase due to visit of honeybee in the mustard field	Gazipur
826	Effect of Sowing dates of Mustard on Incidences of Mustard aphid, *lipaphis erysimi* (kalt.) In Rainfed condition	• To observe the suitable date (s) of sowing and aphid population dynamics during different stages of growth of mustard variety and • To find out relationships between aphid population and weather parameters associated with its growth in High Barind Tract	Rajshahi
827	Development of Bio-Control Based Management Package Against The Major Insect Pest of Soybean	To find out the most effective management package against insect pest complex (leaf roller, hairy caterpillar and common cutworm) in soybean	Noakhali

Sl No.	Research Title	Objective(s)	Location
828	Evaluation of Soybean Entries Against Major Insect Pest	To select soybean genotype(s) resistant to insect pests attack	Gazipur
829	Up Scaling and Field Validation of Bio-Rational Based Integrated Management Packages Against Major Insect Pests of Brinjal	• Validation and up scaling of IPM package for the control of major insect pests of brinjal • Production of toxic synthetic chemical pesticide free brinjal	Gazipur
830	Development of A Management Approach Against Sucking Pests of Brinjal	To obtain a suitable management option against sucking pests of brinjal	Gazipur
831	Field Validation of Sex Pheromone Based IPM Package Against Brinjal Shoot and Fruit Borer on Brinjal	To observe the performance of IPM package against brinjal shoot and fruit borer in brinjal under farmer's field condition	Barisal
832	Management of Leaf Miner In Ridge Gourd	To find out effective management approach (es) for leaf miner infesting ridge gourd	Jamalpur
833	Field Validation of Sex Pheromone Based IPM Package Against Cucurbit Fruit Fly on Bitter Gourd	To observe the performance of IPM package against fruit fly in bitter gourd under farmer's field condition	Barisal
834	Field Validation of Sex Pheromone Based IPM Package Against Cucurbit Fruit Fly on Sweet Gourd	To observe the performance of IPM package against fruit fly in sweet gourd under farmer's field condition.	Barisal
835	Field Validation of Sex Pheromone Based IPM Package Against Cucurbit Fruit Fly on Bottle Gourd	To observe the performance of IPM package against fruit fly in bottle gourd under farmer's field condition	Barisal
836	Up Scaling of Bio-Rational Based Integrated Management Packages Against Major Insect Pests of Tomato	• To validate and upscale IPM package for the control of major insect pests of tomato and • To produce of toxic synthetic chemical pesticide free tomato	Gazipur
837	Field Validation of Sex Pheromone Based IPM Package Against Fruit Borer Pests on Tomato	To observe the performance of IPM package against *Spodopteralitura*in tomato under farmer's field condition	Barisal
838	Development of bio-rational based integrated management packages Against pod borer Complex Attacking Country bean	To evaluate biopesticides for their use in IPM packages against pod borer complex attacking country bean	Gazipur

Sl No.	Research Title	Objective(s)	Location
839	Development of Biorational pest Management practice Against Sucking pest of the Country bean	To evaluate treatments with more of a focus on thrips	Gazipur
840	Development of bio Rational Based Integrated Management Packages for the Major insect pests of Cabbage	To develop IPM package for managing major insect pests of cabbage	Gazipur
841	Development of Bio Rational Based Integrated Management Package(S) Against Diamond Back Moth Attacking Cabbage	To develop IPM package for managing DBM attack in cabbage	Gazipur
842	Field Validation of Sex Pheromone Based Ipm Package Against Leaf Eating Caterpillars on Cabbage	To observe the performance of IPM package against *Spodopteralitura* in cabbage under farmer's field condition	Barisal
843	Development of Bio-Rational Based Integrated Management Package(S) For The Major Insect Pests of Cauliflower	To develop IPM package for managing major insect pests of cauliflower	Gazipur
844	Field Validation of Sex Pheromone Based IPM Package Against Leaf Eating Caterpillars on Cauliflower	To observe the performance of IPM package against *Spodopteralitura* in cauliflower under farmer's field condition	Barisal
845	Development of A Management Approach Against Insect Pest Complex of Okra	To develop appropriate strategy for managing the Insect Pest Complex ofokra	Jamalpur
846	Development of Management Approach Against Flea Beetle (*Phyllotreta Striolata*) of Radish	• To find out most effective management option for flea beetle on radish • To know the damage severity of the pest	Bogra
847	Development of Integrated Management Packages Against Potato Cutworm In Farmers Field	To observe the performance of IPM package against potato cutworm under farmer's field condition	Bogra
848	Development of Integrated Management Package's For The Control of Potato Tubermoth (Ptm) In Field Condition	• To find out an effective management approach for potato tuber moth (PTM). • To estimate the extent of damage by PTM in field	Gazipur

Sl No.	Research Title	Objective(s)	Location
849	Development of Integrated Management package's For The Control of Potato Tuber Moth (Ptm) In Storage Condition	• To find out an effective management approach for potato tuber moth (PTM) in storage • To estimate the extent of damage by PTM in storage	Gazipur and Munshigonj
850	Efficacy of Different Management Approach Against Red Spider Mite (*Tetranychus Urticae*) of Panikachu	• To find out the suitable management option against red spider mite • Determination of damage severity of red spider mite	Gazipur
851	Development of Effective Integrated Management Package Against Sweet Potato Weevil	To determine an effective package against weevil infestation in sweet potato	Gazipur, Jamalpur, Barishal and Bogra
852	Management of Common Cutworm (*spodoptera litura*) on aroid at Farmers' field Condition	To evaluate the performance of IPM approachin controlling common cutworm of aroid	Joypurhat & Bogra
853	Survey, Monitoring and Documentation of Major Insect Pests of Panikachu	• To identify insect pests attacking panikachu at Bogra region. • To determine damage severity of those insect pests	Joypurhat
854	Development of bio-Rational based Management Approach Against mango leaf Hoppers, Idioscopus spp.	To find out the most suitable bio-rational based management option(s) for the control of mango hopper	Gazipur & Chapai Nawabganj
855	Development of Insecticide based Management against Mango Hoppers, *idioscopus* spp.	To find out the most effective insecticide(s) for the management of mango leaf hoppers	Gazipur & Chapai Nawabganj
856	Survey, Collection and Identification of Different Pollinators of Mango	• Recording and identifying different pollinators of mango during flowering • Documenting the impact of insecticides on pollinators of mango	Rajshahi
857	Management of Banana Leaf and Fruit Beetle With Netting and Polyethylene Bagging At Farmers' Field	To evaluate the performance of netting and polyethylene bagging at farmers' field	Rajshahi
858	Survey, Collection and Identification of Different Pollinators of Litchi	To document the different pollinators of litchi during flowering period.	Rajshahi

Sl No.	Research Title	Objective(s)	Location
859	Suceptibility of Different Varieties of Litchi To Litchi Mite (*Aceria Litchi*keifer)	To know the incident of litchi mite (*Aceria litchi*), its extent of damage to litchi leaves and inflorescence on different litchi variety	Rajshahi
860	Efficacy of Different Control Measures Against Litchi Mite (*Aceria Litchi K*eifer)	To find out the most effective method of managing litchi mite	Rajshahi
861	Development of Management Approach Against Tube Spittle Bug (*Machaerota Planitiae* Distant) Attacking Ber	• To find out most effective management option for Tube spittle bug attacking ber • To determine the damage severity of the pest	Bogra & Rajshahi
862	Efficacy of Different Types of Bagging For Management of Oriental Fruit Fly (*Bactrocera Dorsalis*) Attacking Guava	To find out the most suitable method for reducing fruit fly infestation in guava.	Rajshahi
863	Study and Documentation of Major Insect Pests of Citrus	• Documenting the major insect pests of citrus • Recording natural enemies of the pests	Jamalpur
864	Screening of Onion Germplasm Against Thrips (*Thripstabaci*)	• To identify thrips resistant onion germplasms • To record population dynamics of thrips	Bogra
865	Integrated management of Onion Thrips (*Thripstabaci*)	To find out an effective management options against thrips	Bogra
866	Management of Thrips In Seed Onions To Enhanced Seed Yields	To evaluate the efficacy of bio-rational and synthetic insecticides against thrips infestation to enhance seed yield of onion	Bogra
867	Development of Insecticide Based Management Approach Against thrips and Iris Yellow Spot Virus in Onion	To evaluate the efficacy of different insecticides for the management of thrips and Iris yellow spot virus on onion bulb crop	Bogra
868	Effect of Different Transplanting Dates For The Management of Thrips In Onion	To select suitable planting date(s) of onion that can escape thrips attack	Bogra
869	Population Dynamics and Management of Thrips in Bulb Onion By Use of Vegetable Intercrops	To study the population dynamics and to evaluate the effectiveness of intercropping carrot, Tomato and French bean with onion for the management of thrips in onion	Bogra
870	Evaluation of Garlic Genotypes Against Thrips	• To identify thrips resistant garlic germplasms • To record the population dynamics of thrips in resistant germ-plasms	Bogra

Sl No.	Research Title	Objective(s)	Location
871	Development of Management Approach Against Sucking Pests Attacking Chilli	• To find out the cost effective management options against thrips-mite complex in chilli • To know the extent of damage of thrips-mite complex in chill	Gazipur
872	Development of Eco-Friendly Pest Management Practices Against Thrips-Mite Complex of Chilli	To develop an integrated management approach against thrips-mite complex of chilli	Bogra
873	Management of Leaf Gall In Bay Leaf (*Cinnamomumtamala*)	• To develop suitable control measure against gall forming mite of bayleaf • To assess the intensity of infestation of gall forming mite of bayleaf	Bogra
874	Assessment of The Pest Status and Seasonal Fluctuation of Major Insect Pests of Some Selected Vegetables and Fruits	To document the seasonal fluctuation of the major insect pests ofvegetables and fruits at different locations of the country	Gazipur,Barisal, Jamalpur, Bogra & Chapai Nawabganj
875	Studies on The Succession of Insect Pests and Their Natural Enemies In Some Selected Crops	• To assess the infestation status of insects on different crops • To find out the incidence of natural enemies on different crops	Gazipur
876	Assessment of The Pest Status and Seasonal Fluctuation of Major Insect Pests of Stored Wheat, Mung Bean and Maize	• To document stored wheat and mungbean pests and their infestation status • To observe the seasonal fluctuation of wheat and mung bean pests in the storage	Gazipur
877	Collection of Marketed Mungbean, Lentil, Rice and Flour From Different Shops Across The Country For Survey of Insect Pests and Analyzing For Residue Detection and Quantification of Insecticides	• To document insect pests attacking stored food products at different shops in different areas of Bangladesh • To know the toxicity level of chemicals used in those products	Gazipur
878	Evaluation of Bio-pesticides and Botanicals for the Management of lac Predators and their safety to lac insect	To develop effective and safe management approach against predators attacking lac insects in the field	Chapai Nawabganj
879	Assessment of Sources of Lac Predators, *Eublemma Amabilis* and *Pseudohypatopa Pulverea* In The Field	To know the sources of predator attack in the field	Chapai Nawabganj
880	Evaluation of Mulches For Enhancing Lac Production In Ber Under Rainfed Condition In Bangladesh	• To observe the yield potentiality of lac in rain fed condition • To select suitable mulch for yield potentiality of lac in rain fed condition	Chapai Nawabganj & Rajshahi

Sl No.	Research Title	Objective(s)	Location
881	Determination of Pre Harvest Interval For Dimethoate and Quinalphos In Major Vegetables	• To determine the pre harvest intervals (PHI) for Dimethoate and Quinalphos in Chilli, Yard Long Bean, Red amaranth, Brinjal, Cabbage and Stem amaranth • To set a standard parameter for Good Agricultural Practice (GAP)	Gazipur
882	Quantification of Residue Degradation of Quinalphos and Dimethoate In Major Vegetables Under Supervised Field Trial	• To determine the rate of degradation of residue level of Dimethoate and Quinalphos in tomato, country bean, brinjal and cauliflower • To create database for PHI determination	Gazipur
883	Determination of Pesticide Residue In Vegetables and Fruits Collected From Different Regions of Bangladesh	• To determine the pesticide residue load in harvested vegetables and fruits; • To collect farmgate vegetable and fruit samples across the country for pesticide multi residue analysis	Gazipur
884	Decontamination of Insecticide Residues From Vegetables	To quantify the residue loss through washing with different solution (NaCl, Detergent, Vinegar, Hot water etc), peeling, and cooking in different way	Gazipur
885	Residue Analysis of Different Insecticides In Dry Fish Collected From Different Market	• To detect the insecticide residue levels in farmgate& marketed dry fish and • To quantify left over insecticides in dry fish (viz. chepa, loitta, shidhol, chhury, dry shrimps, paisha, mola, etc.) samples	Gazipur
886	Decontamination of Insecticide Residues From Contaminated Dry Fish	To quantify the residue loss through dipping into and washing with different solution (NaCl, Detergent, Vinegar, Hot water etc.) in different way from contaminated dry fish	Gazipur
887	Purity Analysis of Nine Different Groups of Pesticides From Eight Different Locations	• To quantify the active ingredient present in different marketed brands of selected pesticide groups and • To understand the purity level of different formulated products of different pesticide groups	Gazipur
888	Survey of insect pests and natural enemies in wheat and determination of damage potential due to pests	• To document the damage severity of insect pests attacking wheat • To identify the natural enemies of insect pests of wheat	Farmers' fields
889	Yield loss assessment of wheat due to the aphid infestation	To document yield loss due to aphid infestation in wheat	On Station
890	Development of management package(s) against aphid, *rophalosiphum* sp. attacking wheat	Developing suitable management approach(es) against wheat aphid	On Station
891	Evaluation of different insecticides against brinjal aphid	To evaluate the efficacy of new insecticides against aphid in brinjal	On Station

Sl No.	Research Title	Objective(s)	Location
892	Bt Begun seedling raising at PRC & RARS, Ishwardi	To supply the seedlings in the farmers field to demonstrate the performance of Bt begun at farm level	RARS, Ishwardi
893	Breeder seed production of BARI Bt Begun 4 at PRC & RARS, Ishwardi, Pabna	To provide quality pure seeds for seedling raising	RARS, Ishwardi

PLANT PATHOLOGY DIVISION

894	Study on the seed borne fungi of some selected vegetables	• To identify fungi associated with seed. • To determine their pathogenicity as seed-borne	Gazipur
895	Study on the Relationship of Weather Factors in Developing *Alternaria* Blight of Rapeseed-Mustard	• To know the effect of weather factors in developing *Alternaria* blight of rapeseed-mustard • To know the effect of date of sowing on the incidence and severity of Alternaria blight	Alamnagar, Burirhat and Gazipur
896	Determination of effective culture media for isolation of *Phytophthora infestans* from infected potato leaf in Bangladesh	• To evaluate the effective culture media • To check the virulence of the pathogen	Gazipur
897	Study the seed health status of Maize	• To know the prevalence of seed borne fungi on maize • To Observe the disease transmission percentage from seed to seedling	Joydebpur, Gazipur
898	Prevalence of seed born pathogen of sesame	• To study the health and quality of sesame seed • To help the farmers with effective measure	Sesame growing area.
899	Post-harvest disease management of banana	• To reduce the post-harvest loss of banana fruit • To increase shelf-life and quality of banana fruit	Gazipur
900	Effect of plant age on stemphylium blight disease severity in lentil.	• To develop an artificial inoculation protocol for screening lentil genotypes against stemphylium blight disease • To find out the suitable growth stage for *Stemphylium* blight disease development	Gazipur
901	Isolation and identification of fungal diseases of strawberry	• To identify of prevailing fungal diseases • Tostudy its morphological and cultural characteristics of associate fungi	FRS, Rajshahi
902	Study on the interaction effect of planting time and spray schedule with different fungicides on development of Stemphylium blight of lentil	• To study the interaction effect of planting time and spray chedule with different fungicides on development of Stemphylium blight of lentil • To observe the optimum stage of lentil when Stemphylium blight appear	RARS, Jessore
903	Yield loss of potato due to late blight infection at different ages under inoculated condition	To estimate yield reduction of potato due to late blight based on crop age	Rangpur

Sl No.	Research Title	Objective(s)	Location
904	Survey of floral malformation of mango in major mango growing region of Bangladesh	• To asses the distortion in diversity of orchards, • To evaluate varietals reaction of the disease	Five upazilla of Rajshahi district
905	Screening of sesame germplasm against Stem rot diseases under natural field condition.	To find out resistant var. /lines against the diseases	Joydebpur
906	Screening of tomato lines/varities against early blight disease under natural field condition	To find out resistant lines/varities against the diseases	Gazipur
907	Screening of lentil entries against stemphylium blight disease through artificial inoculation.	To find out resistant source of lentil genotypes against stemphylium blight disease	Joydebpur
908	Collection of lentil germplasm resistant to Stemphylium blight	To find out the resistant source against Stemphylium blight of lentil	RPRS, Madaripur
909	Screening of onion lines/varieties against purple leaf blotch disease	To find out resistant/tolerant onion lines against purple leaf blotch disease.	SRC, Bogra
910	Screening of bush bean lines/varieties against foot rot disease caused by *Sclerotium rolfsii*	To find out resistant lines/varieties against the foot rot disease	Gazipur
911	Effect of date of sowing on purple blotch of onion seed crop	To know the effect of date of sowing on purple blotch of onion seed crop	Gazipur
912	Effect of planting pattern and fungicide application in controlling botrytis gray mold (BGM) disease in chickpea	• To find out an effective control measure against BGM disease in chickpea • To minimize fungicide application against BGM	Joydebpur, Ishurdi and Jessore
913	Effect of Relay and Intercropping of lentil with different Crops for Lentil Disease Management	To find out the effective intercrop combination to manage the diseases	RARS, Rahmatpur
914	Efficacy of new fungicides in controlling purple blotch of onion	• Find out effective fungicides against the disease • To observe the effect of purple blotch on yield of onion	Joydebpur
915	Efficacy of new fungicides in controlling die back and anthracnose of chilli	To test the efficacy of new fungicides in controlling die back and anthracnose disease of chilli	Gazipur
916	Efficacy of different fungicides in controlling Sigatoka disease of banana	To find out the effective fungicides in controlling sigatoka disease of banana	Sagordhigi and Tangail

Sl No.	Research Title	Objective(s)	Location
917	Efficacy of fungicides to control white mould disease of vegetable crops.	To find out the appropriate management practice of the disease	Gazipur
918	Efficacy of different new fungicides in controlling powdery mildew of pumpkin.	• To find out an effective chemicals in controlling powdery mildew of pumpkin • To reduce yield losses of that crops	Gazipur
919	Standardization of spray schedule of two effective fungicides against stemphylium blight disease of lentil.	To find out effective fungicide(s) against stemphylium blight disease of lentil	Joydebpur, Ishurdi and Jessore
920	Efficacy of new Fungicides in Controlling Stemphylium blight of Lentil	To find out the most effective fungicides in controlling Stemphylium blight of lentil.	RPRS, Madaripur
921	Efficacy of new Fungicides in Controlling BGM of Chickpea	To find out the most effective fungicides in controlling BGM of chickpea	RPRS, Madaripur
922	Efficacy of chemicals in controlling floral malformation of mango	To find out effective chemicals to control floral malformation of mango	Major Mango growing areas of Bangladesh
923	Control of mango scab disease by fungicidal spray at different stage of fruit development	To find out the suitable chemical (s) to control the disease	RHRS, Chapai Nawabganj
924	Efficacy of new Fungicides in Controlling Anthracnose of Mango Fruits	To find out effective fungicides to control postharvest anthracnoze of mango caused by *Colletotrichum gloeosporioides*	RHRS, Chapai Nawabganj
925	Efficacy of new fungicide in controlling foot rot of betelvine	To test the efficacy of new fngicide in controling foot rot of betelvine	FRS, Rajshahi
926	Efficacy of fungicides for controlling vine rot of pointed gourd	• To study the efficacy of different fungicides for controlling vine rot of pointed gourd • To increase the yield of pointed gourd	Kaligonj, Jessore; Nokla and Netrokona
927	Efficacy of different fungicides for controlling Botrytis blight of Gladiolus	To find out suitable chemical fungicides for controlling Botrytis Blight of gladiolus	Godkhali, Jhikargasa.
928	Study on the effect of different chemical fungicides on *Alternaria* leaf spot of Brocolli	To study the effect of different fungicides on *Alternaria* leaf spot of Brocolli	RARS, Jessore
929	Effect of fungicides in controlling late blight of potato for late plantation	• To assess the yield loss or gain for using curative fungicide staring from early growth stage of crop. • To find out suitable fungicides for effective management of late blight of potato	Burirhat, Rangpur

Sl No.	Research Title	Objective(s)	Location
930	Screening of organic composts for mass culturing of *Trichoderma harzianum* and to be used against soil-borne pathogen *Sclerotium rolfsii*	• To find out the appropriate compost materials for mass culture of *T. harzianum* isolates • To evaluate formulated *Trichoderma* against soil-borne pathogens	Gazipur
931	Liquid and powder formulation of the bio-control agent *Trichoderma harzianum*	• To find out the appropriate carrier for liquid formulation of *T. harzianum* isolates • To evaluate talc powder for formulation *Trichodermaharzianum*	Gazipur
932	Formulation of eco-friendly management package for foot and root rot disease of lentil	• To find out effective management tools against foot and root rot disease of lentil • To help sustainable production of lentil	Gazipur
933	Development of eco-friendly management package for foot & root rot and wilt diseases of chickpea	• To find out effective management tools against foot and root rot disease of chickpea • To help sustainable production of chickpea	Gazipur
934	Formulation of Plant Products for the Management of Seedling Diseases of Vegetable Crops	• To develop a product for the management of seedling diseases • To test the efficacy of tablet against the seedling diseases	
935	An *In-vitro* study on antagonism of rhizosphere bacteria against foot root causing pathogen, *Sclerotium rolfsii* of lentil	Isolation of antagonistic bacteria from rhizosphere of crops and weeds against S. rolfsii of lentil	Gazipur
936	Integrated Management Foot Rot Disease (*Sclerotium rolfsii*) of Groundnut	To find out the integrated management practice to control foot rot disease of groundnut	Gazipur
937	Integrated Management of Wilt Complex Disease of Chili	To find out the effective management practices against wilt disease of chili.	Ishurdi, Pabna and Shibganj, Bogra
938	Management of Foot and Root Rot Disease of Bush Bean	To find out the effective management practices against foot and root rot disease bush bean	RARS, Ishurdi, Pabna
939	Efficacy of fungicides against Phytophthora blight of pointed gourd and bottle gourd	To find out an effective and suitable control measure of the disease	RARS, Rahmatpur
940	Efficacy of single and combined use of fungicides against leaf spot disease of betel vine	To find out an effective treatment or a management package for controlling betel vine diseases	RARS, Rahmatpur
941	Integrated Management of stem rot (*Macrophomina phaseolina*) in Sesame	To find out effective management package against sesame diseases	RARS, Rahmatpur

Sl No.	Research Title	Objective(s)	Location
942	Development of disease management package for lentil	• To develop a disease management package for both the diseases; *Stemphylium* blight and Foot and root rot of lentil • To increase the yield of lentil	RARS, Jessore
943	Integrated management of rhizome rot of ginger	To find out the effective treatments in controlling rhizome rot of ginger	Bogra
944	Management of rhizome rot of ginger through chemicals and biocontrol agents	To find out the suitable control measures in controlling rhizome rot of ginger	Bogra
945	Using botanicals and chemicals for controlling leaf spot disease of betel vine	To find out an appropriate control measure for managing of foot and leaf rot and leaf spot of betel vine	SRC, Bogra
946	Management of damping off disease of vegetable seedling under floating agriculture	To find out an effective and suitable control measure of the disease	RARS, Rahmatpur
947	Screening of commercial cultivars of okra against root knot nematode	• To find out suitable cultivars against the disease • To evaluate commercial cultivars against the disease	Gazipur
948	Screening of neem products against root-knot nematode, *Meloidogyne incognita* of tomato	• To evaluate neem byproducts for management of root knot nematode of tomato • To identify suitable neem byproduct against the nematode	Gazipur
949	Screening of organic materials against root-knot nematode *Meloidogyne* spp. of onion	To identify the suitable organic materials for the management of root-knot nematode of onion	Gazipur
950	Efficacy of organic soil amendments and nematicide against root-knot nematode *Meloidogyne* spp. of bitter gourd and white gourd	To develop integrated management for the control of root-knot nematode in the early and late varieties of country bean	Gazipur
951	Yield loss assessment of onion due to infestation of root-knot nematode *Meloidogyneincognita*	To assess the yield loss of onion infected by root-knot nematode	Gazipur
952	Management of Root-Knot Disease of Egg Plant Through the Application of Nematicides, Biocontrol Agents and Different Organic Amendments	To find out the effective management practices in controlling root-knot disease of egg plant.	RARS, Ishurdi, Pabna

Sl No.	Research Title	Objective(s)	Location
953	Management of Root-Knot Disease of Tomato Plant Through the Application of Nematicides, Biocontrol Agents and Different Organic Amendments	To find out the effective management practices in controlling root-knot disease of tomato plant.	RARS, Ishurdi, Pabna
954	Collection, isolation and identification of bacterial wilt pathogen from different host	To identify the different isolates of pathogenic bacteria to preserve them as type culture	Gazipur
955	Collection, isolation and identification of *Pseudomonas fluorescence*	• Collecting *Pseudominas Fluorescence* isolate collected from different location • Identifying the isolated through different physiological and biochemical tests	Different parts of the country
956	Screening of Tomato lines/varieties against bacteria wilt disease	To find out resistant lines/varities against the diseases	Gazipur
957	Yield loss assessment of ginger due to Bacterial wilt based on physical seed sorting.	• To estimate yield reduction of ginger due to rhizome rot based on percent seed infection • To suggest suitable seed that will be helpful for minimization of loss	Gazipur
958	Collection and Evaluation of Mungbean lines Resistant to Yellow Mosaic Virus	To find out the resistant source against YMV of Mungbean	RPRS, Madaripur
959	Screening of pumpkin genotypes against *Cucumber mosaic virus* (CMV) through artificial inoculation	To find out CMV resistant/tolerant pumpkin genotype or line	Joydebpur, Gazipur
960	Screening of commercial okra varieties resistant to *Okra yellow vein clearing mosaic virus* (OKYVCMV).	To find out OKYVCMV resistant/ tolerant okra variety/line	Joydebpur, Gazipur
961	Effect of planting dates on *Cucumber mosaic virus* in chilli	• To evaluate the disease incidence at different planting dates • To study the relationship between vector (Aphids) population and disease incidence	Joydebpur, Gazipur
962	Study of Cultural Management of Virus Diseases of Watermelon through Intercropping with Different crops	To demonstrate its effectiveness in the field	RARS, Rahmatpur
963	Survey on disease of different fruit crops	• To identify new diseases as well as existing diseases of different fruit crops • To assess the disease status of different fruit crops	Gazipur, Ishardi, Thakurgaon, Dinajpur, Tangail, Mymensingh, Rajshahi, Rangpur, Barishal and Khagrachari

Sl No.	Research Title	Objective(s)	Location
964	Survey and identification of major disease of vegetable crops	• To identify new diseases as well as previously recorded diseases of vegetable crops • To assess the disease status	Gazipur, Ishardi, Khulna, Bagherhut and Shatkhira
965	Survey of different disease of spices crops.	• To identify new diseases as well as recording the intensity of diseases on spice crops • To isolate, identify the pathogens and pathogenecity test	Farmers field and research station
966	Investigation on the salmonella contamination of betel leaf	• To find out the prevalence of salmonella • To detect the stage and time of contamination	Barishal, Rajshahi and Bagherhat
967	Yield loss assessment of potato due to late blight infection at different ages under natural condition	To determine the extent of yield loss at different growth stage of infection	On Station
968	Effect of fungicides in controlling late blight disease and yield of potato for late plantation	• To assess the yield loss or gain for using curative fungicide starting from early growth stage of crop and • To find out suitable fungicide(s) for effective management of late blight of potato for late plantation	On Station
969	Effect of new fungicides in controlling late blight disease of potato	To test the efficacy of some new fungicides	On Station
970	Effect of different economic spray schedule of mancozeb in controlling late blight of potato on resistant and susceptible variety	To determine the effective spray schedule for managing the disease	On Station
971	Screening of potato varieties and grrmplasm against late blight disease	To evaluate available germplasm aginst late blight of potato	On Station
972	Screening of rapeseed-mustard varieties/lines against *alternaria* leaf blight disease	To screen promising genotypes of mustard lines/varieties to locate sources of resistance to *Alternaria* leaf blight disease	RARS, Ishwardi
973	Screening of rapeseed-mustard lines for resistance to *orobanche*	To find out the resistant sources against *Orobanche*	RARS, Ishwardi
974	Study of fungicides against white mold disease of mustard	To find out the effect of fungicides against white mould disease of mustard	RARS, Ishwardi
975	Standardization of spray schedule of two effective fungicides against stemphylium blight disease of lentil	To evaluate the effective management practice against stemphylium blight disease of lentil	RARS, Ishwardi

Sl No.	Research Title	Objective(s)	Location
976	Management of root-knot disease of tomato plant through the application of nematicides and different organic amendments	• To find out the appropriate management practices to manage root-knot nematodes • To increase yield of tomato	RARS, Ishwardi
977	Management of foot and root rot disease of bush bean	To find out the effective management practices for the management of foot & root rot and wilt diseases of bush bean	RARS, Ishwardi
978	Management of sooty mold in mango	• To study the effect of sooty mold on yield and quality of mango • To improve the quality of mango through management practices	RARS

PLANT PHYSIOLOGY DIVISION

979	Assessment of drought tolerance in wheat genotypes by osmotic stress imposed at early seedling growth stages	• To select wheat genotype(s) for drought tolerance at seedling stage • To investigate the physiological changes associated with drought tolerance	Joydebpur
980	Variability in growth and development of potato varieties at different regions of Bangladesh	• To evaluate growing degree days for different developmental stages • To determine the growth and yield of potato varieties in different locations	Joydebpur and Dinajpur
981	Developmental stages, growth indices and yield of hybrid maize cultivars as affected by growing seasons	To evaluate growth, development and yield performance of the maize varieties under diverse environment of rabi and kharif seasons	Joydebpur and Jessore
982	Growth analysis of selected maize genotypes under variable soil moisture regimes	• To evaluate growth and yield performance of the selected maize genotypes under water stress condition • To find out suitable genotypes for drought environment	Joydebpur
983	Screening of maize genotypes against drought	To find out suitable genotypes for growing in soil moisture scarce environment	Joydebpur
984	Physiological evaluation of chickpea genotypes for rainfed condition	To find out suitable genotype(s) which can be grown in drought environment.	Joydebpur
985	Performance of selected wheat genotypes under salinity in pot culture	To find out suitable salt tolerant of wheat genotype/variety for cultivating in saline area	Joydebpur
986	Salinity stress on physiological changes, dry matter production and yield of selected mustard genotypes at variable growth stage	To determine the effect of Nacl on shoot and root growth, total chlorophyll, distribution and accumulation of Na, K and yield	Joydebpur
987	Screening of wheat genotypes against salinity stress under laboratory condition	To evaluate and identify salt tolerant wheat genotype(s)	Joydebpur

Sl No.	Research Title	Objective(s)	Location
988	Screening of grasspea genotypes against salinity	To evaluate grasspea genotypes for their salt tolerance	Joydebpur
989	Study of selected lentil genotype against drought	To find out suitable genotype(s) which could be grown in drought stress environment	Joydebpur
990	Effect of top cutting on yield and seed quality of groundnut	To identify the optimum time for top cutting and harvesting time	Joydebpur
991	Growth and yield of wheat under different macronutrient stress	To understand the effect of fertilizers on wheat which can provide better alternative management practices to farmers facing chronic low grain yield of wheat	Joydebpur
992	Study on phenology, growth and development of sweet corn at different water regimes	To find out suitable irrigation schedule which would be able to produce good yield under water scarce situation.	Joydebpur
993	Influence of harvesting time on carbohydrate accumulation in some potato varieties	To find out suitable harvesting time for growing processing quality potato.	Joydebpur

SEED TECHNOLOGY DIVISION

994	Seed yield and quality of pea as influenced by phosphorus level and Mycorrhizal association.	• To determine the optimum Phosphorus level for quality seed production of pea • To know the effect of mychorrhizal association for yield and seed quality of pea	Gazipur
995	Seed quality of wheat under conservation agriculture based technology.	• Finding out the suitable under conservation agriculture based technology for wheat seed production	Gazipur
996	Increase nitrogen use efficiency in wheat seed production by using digital image analysis system.	• To use digital camera image and software for assess leaf nitrogen of wheat at different stage • To establish a relationship among the physiological character and different image character	Gazipur
997	Effect of harvested fruit storage period on seed quality of pumpkin.	To find out the appropriate post harvest storage period for quality seed production of pumpkin	Gazipur
998	Effect of priming with phosphate solutions on seed yield and quality of maize.	To find out the of different phosphorus priming source on seedling growth and yield of maize	Gazipur
999	Effect of seed priming with phosphate solutions on seedling growth and yield of maize	To find out the effect of different phosphorus priming source on seedling growth and yield of maize	Gazipur
1000	To investigate the storability to lettuce seed	To standardize storage method of BARI Lettuce seed to maintain the quality of seed	Gazipur
1001	Effect of plant spacing and fruit load on quality seed production of capsicum	To find out optimum spacing for quality seed production of capsicum	Gazipur

Sl No.	Research Title	Objective(s)	Location
1002	Seed quality of capsicum as influenced by fruit retention per plant	• Finding optimum number of fruit per plant to produce good quality seed • Finding fruit number has any influence on the amount of viable seed production	Gazipur
1003	Effect of fruit thinning on seed quality of eggplant (*Solanum melongena* l.) at different harvest	• To investigate the effect of number of fruits retained per plant and number of harvest on seed quality of eggplant	Gazipur
1004	Effect of post harvest fruit storage on seed quality of pumpkin	To find out appropriate post harvest fruit storage period on quality seed production	Gazipur
1005	Effect of seed priming with Zn solution on chickpea	To test the effect of seed priming with various Zn concentration on yield and yield components of chickpea	Gazipur

VERTEBRATE PEST DIVISION

Vertebrate Pest Management			
1006	Development of management package against squirrel damage in coconut trees	To find out appropriate management techniques against squirrel	Rajshahi
1007	Study on the effectiveness of newly designed single and multiple capture traps for controlling rodent	Developing the effective single and multiple capture trap for controlling rats	Gazipur
1008	Survey on bird damage in sprouting wheat in different wheat growing areas of Bangladesh	To know the incidence and the amount of bird damage in wheat field.	Rajshahi, Dinajpur, Pabna
1009	Study of rodent and bird pests status and their damage severity at BARI research field and stores	• Documentation of rodent and bird pest species at BARI campus • To assess the damage severity caused by rodent and bird pests at BARI campus	Gazipur
1010	Survey of squirrel damage in different fruits and vegetables in selected areas of Bangladesh	To know the incidence, status nature andextent of damage squirrel in fruit trees	Rajshahi, Akbarpur, Moulvibazar, Chittagonj, Jessore
1011	Study on the status of black rat, *Rattusrattus* on coconut and its eco-friendly management technique at southern part of Bangladesh	• To know the incidence and extend of damage by rat on coconut and • To find out the most effective management technique against black rat	Barisal and Patuakhali
1012	Comparative study of rat damage in bed planting, line sowing and broadcasting wheat in Rajshahi region	• To know the farmers opinion about rat damage in bed planting of wheat field • To know the rat damage severity in different planting methods in wheat fields	Rajshahi

Sl No.	Research Title	Objective(s)	Location
1013	Efficacy of 'Rodol' for controlling rats	To evaluate the efficacy of "**Rodol**" for controlling rodents.	Gazipur

POSTHARVEST TECHNOLOGY DIVISION

Processing and Preservation of Cereals, Legumes and Horticultural crops			
1014	Storage stability of processed ginger paste	• To examine the quality of ginger paste during storage • To select the preservative and storage material for ginger paste in Bangladesh condition • To increase the shelf life of ginger paste	Gazipur
1015	Determination of drying characteristic of jute leaf	• To study the drying behavior of jute leaf • To study the rehydration properties of dried jute leaf • To analyze the nutrient content of fresh and dried jute leaf	Gazipur
1016	Effect of blanching on the quality of frozen carrot and yard long bean	To study the shelf life and nutritional quality of the frozen product	Gazipur
Postharvest Management of Cereals, Legumes and Horticultural crops			
1017	Standardization of packages for quality and shelf life of selected vegetables (bitter gourd)	• Estimating weight loss, color, firmness, vitamin C & A, percentage decay and shelf life of selected vegetables • Standardizing the packages and packaging materials for selected vegetables at farmers, traders and retailers level with a view to reduce the postharvest losses and increase their shelf life	Gazipur
1018	Effect of temperature on the quality and shelf life of selected fruits (pineapple).	• Estimating the physico-chemical parameter (weight loss, fruit color, firmness, fungal growth, decay percentage, TSS, acidity, vitamin C & A, sugar) of selected stored fruits • Optimizing the temperature for increasing the storage life of selected fruits	Gazipur
1019	Effect of vapor heat treatment on postharvest quality of tomato	• To extend shelf life at ambient storage condition • To reduce postharvest losses	Gazipur
Analysis and Food quality Control			
1020	Study on the sprouting behavior of potato using chemicals and some essential oils during storage.	• To find out the storage temperature and time of sprouting in relation to potato varieties • Selecting the best anti sprouting agent to minimize sprout production in potato	Gazipur
1021	Determination of Formaldehyde in selected fruits and vegetables	• Detection of formaldehyde in fruits and vegetables • Quantification of naturally produced formaldehyde in the produce	Gazipur

Sl No.	Research Title	Objective(s)	Location
1022	Effect of ripening chemical application at different stage of maturity on postharvest quality of tomato	• To find the suitable stage of maturity for applying ripening chemicals on tomato • To assess the quality of tomatoes with application of ripening chemicals at different stages of maturity	Gazipur
Technology Transfer			
1023	Two days training program for dissemination of postharvest handling, processing, preservation and packaging technologies of crops (6 Training of trainers conducted)	• Dissemination of matured technologies on postharvest processing, preservation and packaging at different levels of end users • Creation of income generation for the rural poor with a view to alleviate poverty	Gazipur, Tangail and Khagrachori

FARM MACHINERY AND POSTHARVEST PROCESS ENGINEERING DIVISION

1024	Adoption of Power tiller Operated Seeder in rice-wheat Cropping system	To increase cropping intensity and reducecrop production cost	Dinajpur and Rajshahi
1025	Fine tuning of power tiller operated bed planter	To fine tune the current bed planter and evaluate the performance with more versatile functional components	Dinajpur and Rajshahi
1026	On farm validation of zero tillage planter for up land crops production	To validate the improved zero till planter with weed management techniques for better establishment of upland crops in farmers field	Rajshahi
1027	Performance evaluation of a tractor mounted vegetable transplanter	To test and evaluate the performance of vegetable transplanter	Gazipur
1028	Enhancement of the productivity through mechanized intercropping system in wheat-maize-rice cropping pattern	To Enhance the total productivity as well as improvement of soil health through inoculation of leguminous crop	Gazipur
1029	Evaluation and extension of power tiller operated potato planter in the farmer's field	To demonstrate and evaluate the performance of the potato planter in the farmer's field	Rajshahi
1030	Field performance evaluation of hand operated no-till seeder for crop establishment	To evaluate the field performance of hand operated no-till seeder and modifying the seeder if necessary	Gazipur
1031	Design and development of dry land npk briquette applicator	To develop a manual dry land fertilizer applicator for NPK application and to test the performance of the applicator	Gazipur
1032	Development and performance evaluation of an axial flow pump	To design and fabrication of an axial flow pump for surface water irrigation	Gazipur
1033	Design and development of a power tiller operated multi-row weeder for wheat	To design and fabrication of a power tiller operated multi-row weeder for row crops and test the performance of the weeder	Gazipur

Sl No.	Research Title	Objective(s)	Location
1034	Comparative performance evaluation of manual injector type usg applicator	To test and evaluation of different injector type USG applicators and analyzing the economic performance	Gazipurand Jamalpur
1035	Development of a power tiller operated potato harvester	To develop a low cost power tiller operated potato harvester and to compare the cost of harvesting with conventional harvesting	Rajshahi
1036	Modification and performance evaluation of a mango harvester	To modify the existing mango harvester and evaluating the performance	Gazipur
1037	Development of a mechanical vegetable washing machine	To design and fabrication of a vegetable washing machine and to evaluate the technical and economic performance of the machine	Gazipur, Narsinghdi, Bogra, Jessore and Pabna
1038	Modification of a hot water treatment plant for fruits	To modify and evaluate the performance of the hot water treatment plant	Gazipur
1039	Improvement of existing BARI maize sheller for shelling unhusked maize cobs	To modify and performance evaluation of BARI maize sheller for shelling unhusked maize cobs	Gazipur
1040	Development of heat pump dryer for heat sensitive crops	To fabricate and evaluate the performance of a heat pump dryer suitable for heat sensitive crops	Gazipur
1041	Development and performance evaluation of a mini oil expeller	To design, fabrication and performance evaluation of a mini oil expeller for expelling small and large sizes oil seeds	Gazipur
1042	Design and development of an onion stem cutter	To design, fabrication and performance evaluation of the onion stem cutter	Gazipur
1043	Development and performance evaluation of a palm oil expeller	Development of palm oil expeller for extracting locally available palm oil	Gazipur
1044	Enhancement of shelf-life of papaya through pre-treatments	To reducethe postharvest loss of papaya using suitable pre-treatment and to disseminate the technology to the farmers	Gazipur
1045	Design and development of a coffee pulper	To design, fabrication and performance evaluation of the coffee pulper	Gazipur and Khagrachari
1046	Design and development of a cashewnutsheller	To design, testing and performance evaluation of the power operated cashew nut sheller	Gazipur and Khagrachari
1047	Development of solar dryer for drying of spices seeds	To design ,fabrication and performance evaluation of the solar dryer in terms of seed germination	Bogra
1048	Performance evaluation of lithium ion battery for operation of bari developed small powered machinery	Performance evaluation of lithium battery loaded with BARI developed small powered machinery	Gazipur

Sl No.	Research Title	Objective(s)	Location
1049	Technical back up to manufacturers for machinery prototype development and fine tuning of existing machines	To demonstrate machinery functional parts to manufacturers and organize practical training to the technical staff of manufacturers	Rajshahi, Bograand Jamalpur
1050	Training and demonstration programme on BARI developed farm machinery	Increase the skillness of machinery users and dissemination of BARI developed farm machinery	All over Bangladesh

AGRICULTURAL STATISTICS AND INFORMATION ANDCOMMUNICATION TECHNOLOGY (ASICT) DIVISION

1051	The effect of rainfall, temperature and humidity on salinity in the southern area of Bangladesh	• To estimate the individual effect of rainfall, temperature and humidity on saline area • To estimate the saline area in 2030 in the study area	Patuakhali District
1052	Determination of optimum sample size using yield and yield contributing characters of pointed gourd	To find out optimum sample size for estimating yield contributing characters of the field experiment on pointed gourd	Gazipur
1053	Comparison of spectro-temporal signature of major agricultural crops of Bangladesh	• To collect reference spectro-temporal signature of major crops round the year • To identify features in distinguishing spectro-temporal signature for recognizing/classifying major crops	Gazipur
1054	GIS based land suitability assessment for major crops	• To assess land suitability for major crops. • To generate major cropping pattern using GIS based model. • To validate the GIS based model output	Tangail District
1055	Crop type mapping by using very high resolution satellite and airborne remote sensing data in the southern delta	• To identify crop types under cultivation on the study area • To develop thematic map layers for agricultural crop	Barisal & Patuakhali Districts
1056	Crop forecasting and loss assessment in flash-flood prone haor regions through remote sensing technique	• To develop land use and cover classification of the haor area • To estimate area coverage and yield of major field crops • Identification of spatial distribution of major crop types • To estimate crop loss caused by sudden flash-flood • To develop crop forecasting and loss assessment method for the haor regions	Sylhet & Mymensingh Districts
1057	Development of online system for data collection, documentation and mapping of mustard in chalan beel area of Bangladesh	• To develop an online system for data collection and documentation of mustard • To determine the variety wise area coverage of mustard in block, union, upazila and district	Sirajganj & Natore

Sl No.	Research Title	Objective(s)	Location
1058	Development and implementation of BARI labour management system	• To develop a software for labour management at BARI • To implement the developed software at BARI	Gazipur
1059	Information of BARI technology at the farmers' doorstep through mobile apps	• To develop mobile application of BARI developed technology • To available crop production package at right time at stake holder's door step	Gazipur
1060	Development of geodatabase for haor region for sustainable intensification of agriculture	• To develop thematic map layers of seasonal land use and cover dynamic of the study area using remotely sensed satellite imaginary and GIS • To identify fallow kanda lands in the haor area available for expansion of cultivation • To suggest suitable crop(s) for the haor regions using GIS for suitable intensification	Sylhet & Mymensingh

AGRICULTURAL ECONOMICS DIVISION

1061	Import and Export Parity Analysis of Selected Vegetables and Spices in Bangladesh	• To find out the export potentialities of selected vegetables in different locations; • To estimate the import substitution status of the selected spices crops; • To examine the policy implications arising from the findings	Jessore, Rangpur, Comilla, Narshingdi, Munshigonj, Barisal, Mymensingh, Rajshahi, Faridpur, Natore, Nilphamari, Magura and Pabna
1062	Expert Elicitation for Estimating Varietal Adoption of Maize in Bangladesh	To assemble, document, process and clean data collected on varietal release and varietal adoption at the national level for Maizein Bangladesh	BBS, DAE, BARI Reports
1063	Expert Elicitation for Estimating Varietal Adoption of Wheat in Bangladesh	To assemble, document, process and clean data collected on varietal release and varietal adoption at the national level for Wheatin Bangladesh	BBS, DAE, BARI Reports
1064	Betel Leaf Cultivation and Marketing for Sustainable Income in Bangladesh	• To examine the agronomic practices of betel leaf and to determine per hectare cost of production at growers level • To investigate physical productivity of betel leaf as well as returns obtained by the growers • To explore the constraints and farmers attitudes towards betel leaf cultivation	Jessore, Patuakhali
1065	Assessment of BARI Mango Varieties in Comparison with other Varieties	• To assess and compare the performance of BARI mango varieties in comparison with other existing varieties in some commercial firms. • To identify some production problems and remedial measures taken by the firms	Dinajpur, Nilphamari and Manikgonj

Sl No.	Research Title	Objective(s)	Location
1066	Socioeconomic Impacts of Wheat Seed Storage at Household Level in Bangladesh	• To identify and catalog the systems used in storing wheat seed at the HH level • To identify the distribution systems and relative share of each, through which wheat seed is transferred to other entities • To estimate the profitability of wheat seed storage at the HH level for each type of storage device • To assess the impacts of wheat seed storage on adoption, productivity, and area coverage of improved wheat varieties in the study areas • To explore the problems and prospects encountered with respect to wheat seed storage at the HH level, in order to provide policy recommendations	Mymensingh, Faridpur and Dinajpur
1067	Financial Impact of Shifting of Land under Cereal Crops to Mango Cultivation in Selected Areas of Bangladesh	• To assess the socio-economic status of mango farmers • To estimate the relative profitability of mango production • To identify the factors influencing the shift of land under cereal crops to mango cultivation; and • To explore the problems of cultivating mango at farm level	Chapai Nawabganj, Natore and Rajshahi
1068	Sunflower Cultivation in Bangladesh: A Profitable Option for Fallow Land Utilization	• To identify the factors responsible for choosing sunflower cultivation; • To estimate financial profitability of sunflower • To estimate the economic efficiency of sunflower growers and • To assess the problems and potentialities of sunflower cultivation	Bogra and Satkhira
1069	Profitability and Technical Efficiency of Turmeric Farming: Evidence from Khagrachari District	• To find out the productivity and profitability of turmeric production in the hill areas • To estimate the technical efficiency of the turmeric farmers • To identify the factors causing technical inefficiency of turmeric farms • To identify the constraints to turmeric production and suggest some policy implications for its further improvement	Khagrachari
1070	Impact of Farm Mechanization on Potato Production and Labour Use Pattern in Some Selected Areas of Bangladesh	• To compare the profitability of potato production under mechanized and conventional system • To identify the factors affecting potato production under mechanized and conventional farms • To compare labour use pattern between mechanized and conventional farmers; • To identify the factors determining the adoption of mechanization and labour use pattern and • To explore the constraints of farm mechanization and suggest some policy guidelines	Rajshahi, Dinajpur and Rangpur

Sl No.	Research Title	Objective(s)	Location
1071	Production and Export Opportunities of Jara and Colombo Lemon From Bangladesh	• To know the socio-economic status of lemon growers • To estimate the profitability and resource use efficiency of lemon production • To identify the supply chain of lemon production • To expose the potentialities of lemon export from Bangladesh • To identify the problems and constraints of lemon production and export and suggest some remedial measures	Narsingdi and Sylhet
1072	Constraints and Opportunities of Cut-Flower Production and Export from Bangladesh	• To estimate financial profitability of cut-flower production • To determine value addition at different levels of cut-flowers marketing • To identify cut-flowers exporting status and its potentiality • To explore the constrains of cut-flower production and export • To derive some policy recommendation supporting cut-flower production and export	Jessore and Dhaka
1073	Maize Supply and Demand Situations in Bangladesh: Policy Implications	Quantifying present supply and demand for consumption of maize in Bangladesh	Secondary data
1074	Climate Variability Stresses, Adaptation and Capacity Assessment of Farmers in Some Selected Coastal Areas of Bangladesh	• To identify adaptation knowledge and strategies to cope with climate variability, • To evaluate adaptation system, capacity, willingness of the farmers to reduce different stresses effect • To identify the factor that determine the adaptation capacity of the farmers and • To identify potentiality and problem of adaptation to climate variability faced by the farmers	Patuakhali and Pirojpur
1075	Assessment of Production and Marketing of Latiraj(BARI Panikachu 1) in Jessore Region	• To estimate the input use pattern and profitability of latiraj cultivation • To identify marketing channels of latiraj. • To determine the marketing cost and margin of latiraj at intermediaries level. • To identify the constraints of latiraj production and marketing at farm level	Jessore and Dhaka
1076	Adoption and Profitability of Maize Cultivation in Jessore Region.	• To know the adoption of maize at farm level and to find out the factors affecting their adoptions • To estimate the input use pattern and profitability of maize cultivation • To identify the constraints of maize production and marketing at farm level	Jhenaidah and Chuadanga

Sl No.	Research Title	Objective(s)	Location
1077	Adoption and Relative Profitability of BARI Chinabadam 8 and Dhaka 1 in Jamalpur and Sherpur District	• To estimate the comparative profitability of BARI Chinabadam 8 and Dhaka 1; • To determine the factors affecting economic return; • To know the adoption of management technologies at the farm level; and • To identify the problems and constraints and also make some recommendations for higher production	Jamalpur and Sherpur
1078	Marketing and Value Chain Analysis of Ginger: A Study in Selected Areas of Bangladesh	• To examine the existing marketing system of ginger • To determine the marketing cost, margin and profit of intermediaries on different domestic markets • To estimate the marketing efficiency of different marketing channel • To examine the value chain of ginger aiming to determine the value addition in different steps of marketing channel	Nilphamari and Lalmonirhat
1079	Impact of Hybrid Rice and Maize Seed in Cereal Production System in Bangladesh	• To observe hybrid rice and maize seed production and marketing scenario in Bangladesh • To find out farmers perception about the hybrid seeds • To analyze the efficiency of the farmers' using hybrid seed in rice and maize growing area • To suggest some policy implications about hybrid rice and maize seed for increasing cereal production in Bangladesh	Dinajpur and Sherpur

ON-FARM RESEARCH DIVISION

On-Farm Soil Fertility Management			
1080	Fertilizer and water management of chilli in costal region	• To find out the optimum and economic fertilizer dose for chilli production • To estimate the optimum irrigation frequency	MLT site Bhola sadar, Daulatkhan & Charfashion
1081	Integrated nutrient management for water melon in charland of Bhola	• To know the effect of nutrient management for cultivation of water melon in Charland • To find out the optimum and economic fertilizer dose for water melon	MLT site Charfashion, Bhola
1082	Response of lentil to zinc and boron in charland	To find out the optimum doses of Zn and B for lentil cultivation under Charland condition	Char sadipur, Pabna
1083	Response of fertilizer management for brinjal production	To verify the recommended fertilizer dose with farmers practice	Shibpur, Narsingdi
1084	Effect of liming on cabbage and tomato production in acidic soil	• To find out an optimum dose of lime for cultivation of cabbage and tomato • To maximize the yield of cabbage and tomato • To popularize the technique among the farmers	Bhaluka, Mymensingh
1085	Effect of liming on the production of turmeric and ginger	To find out optimum rate of lime for the cultivation of turmeric and ginger.	Phulbaria, Mymensingh

Sl No.	Research Title	Objective(s)	Location
1086	Effect of nitrogen level on kang kong	• To find out an appropriate dose of nitrogen for higher yield of kang kong • To increase the production and income of farmers	MLT site Manikganj, Noakhali and Sylhet
1087	Response of sulphur level on the yield and storability of onion	• To find out suitable levels of sulphur on the growth and yield of onion • To evaluate the keeping quality of onion at different levels of sulphur	MLT site Manikganj
1088	Effect of rice husk biochar on ginger production	• To investigate the use of biochar as amendment for soil • To determine the optimum combination of biochar and inorganic fertilizer for ginger production	Phulbaria, Mymensingh
1089	Effect of fertilizer management on flower yield of gladiolus	• To evaluate the response of gladiolus to different doses of fertilizers • To know the optimum dose of fertilizer for gladiolous yield	Godkhali, MLT site Jhikargacha, Jessore
1090	Influence of organic and inorganic fertilizers on garlic production	• To find out the optimum and economic fertilizer dose for garlic production. • To increase soil fertility and sustain soil productivity.	Trishal, Mymensingh
1091	Effect of kitchen waste compost and vermicompost with chemical fertilizers on the production of tomato and bottle gourd at charland of Sherpur	• To popularize kitchen waste compost and vermi-compost among the farmers for producing vegetables. • To produce quality tomato and bottle gourd using compost and vermi composts. • To increase yield and income of the farmers	FSRD Site, Kushumhati, Sherpur
1092	Influence of planting techniques and level of fertilizer on quality bulb production of onion	• The effect of different planting techniques and level of fertilizer on onion bulb production • To observe the shelf life of onion bulb	On-station, ARS, Pabna
1093	Effect of levels of fertilizer and placement techniques on the performance of winter maize under zero tillage cultivation	• To observe the performance of maize under no tillage conservation system • To identify the suitable dose and appropriate placement technique of fertilizer for zero tillage maize cultivation	FSRD site, Pushpapara, Pabna,
1094	Influence of irrigation and wheat straw management options on mungbean after harvest of wheat	To find out the optimum time of irrigation and straw management options for wheat production using residual soil moisture after harvest of wheat	FSRD Site, Godagari and MLT Site, Amnura (Chapai-Nawabganj) and Sapahar (Naogoan)
1095	Effect of ash as a source of potassium and silica on yield of wheat under heat stress environment	• To assess the effect of potassium and silica on yield components and yield of wheat • To determine economic return	Pabna, Rangpur and Dinajpur
1096	Effect of ash as a source of silica and potassium on maize under drought condition	• To assess the effect of potassium and silica on yield components and yield of maize • To determine economic return	ARS, Pabna

Sl No.	Research Title	Objective(s)	Location
1097	Feasibility of increasing maize productivity through fertilizer management under pre-anthesis drought at farmers' level	• To determine the ameliorative effects of N, P and K against drought • To minimize the farmers yield losses due to pre-anthesis drought	On-station, Pabna
1098	Development of fertilizer management practice for Potato-Bitter gourd intercropping systems	• To develop a suitable fertilizer package for potato-bitter gourd intercropping systems • To motivate farmer in using balance fertilizer for growing intercropping of potato-bitter gourd	Netrakona MLT site
1099	Performance of maize under agroforestry systems with integrated nutrient management	• To evaluate the performance of cereal crops under fruit tree based agroforestry system • To compare the effect of integrated nutrient management and only inorganic fertilizer on crops and fruits yield	FSRD site, Pushpapara, Pabna
1100	Development of fertilizer recommendation for turmeric, chilli and brinjal as mixed cropping under agroforestry system	• To develop fertilizer recommendation for turmeric, chilli and brinjal mixed cropping under agroforestry system • To increase farmer income	FSRD site, Pushpapara, Pabna
1101	Development of fertilizer recommendation for Potato-Onion/ Maize-T. Aman rice cropping pattern in High Ganges River Floodplain	To develop the optimum fertilizer dose for higher productivity and profitability.	MLT site, Shibpur, Puthia, Rajshahi
1102	Development of fertilizer recommendation for Lentil+Mustard-B. Aus-Black gram cropping pattern in charland under AEZ-11	• To determine appropriate fertilizer dose for the cropping pattern. • To increase production and income of the farmers'.	Char sadipur, Pabna
1103	Development of fertilizer recommendation for Potato-Maize-T. Aman cropping pattern in High Ganges River Floodplain	To find out the optimum and economic fertilizer package for Potato-Maize-T. Aman cropping pattern in High Ganges River Floodplain	MLT site, Shibpur, Puthia, Rajshahi
1104	Development of Fertilizer Recommendation for Potato in Potato-Jute-T. Aman Cropping Pattern in Faridpur	• To verify different nutrient management packages for potato • To know the nutrient uptake by the crop and apparent nutrient balance • To increase production and economic return of potato	Kaderdi, Boalmari and Hatgobindapur, Sadar, Faridpur
1105	Response of Boron (B) on hybrid maize	• To determine optimum dose of B fertilizer in hybrid maize production. • To increase yield of hybrid maize and farmers income.	Kushtia Sadar MLT site
1106	Integrated nutrient management for growing watermelon in saline and coastal area of Patuakhali	• To determine appropriate doses of Fertilizer • To find out the yield performance in response to balance fertilizer in coastal area	MLT site, Kuakata, Patuakhali and MLR stie Amtali, Barguna

Sl No.	Research Title	Objective(s)	Location
1107	Development of fertilizer package for Potato-T.Aus–T. Aman rice cropping pattern in surma-kushiara floodplain	• To verify different nutrient management approaches to find out a cropping pattern based fertilizer package; and • To increase the production of crops and farmers' income	Sylhet, Moulvibazar and Sunamganj
1108	Integrated nutrient management for Chickpea-T.Aus–T. Aman cropping pattern in Sylhet region	• To verify different nutrient management approaches and to find out a cropping pattern based fertilizer dose and • To increase the production of crops and farmers income	Sylhet, Moulvibazar and Sunamganj
1109	Effect of sources and levels of liming materials on soil acidity for growing different vegetables in Sylhet region	• To find out the efficacy of different liming materials for potato, cabbage, cauliflower and tomato cultivation in acidic soils of Sylhet • To recommend the rate of liming for potato, cabbage, cauliflower and tomato cultivation in acidic soils of Sylhet	Moulvibazar and Zakiganj, Sylhet
1110	Effect of conservation tillage and residue management on soil moisture retention and productivity of Chickpea- Maize- T. Aman rice cropping pattern in Barind soil	• To observe the effect the tillage practices and residue management on soil moisture retention • To make the best use of residual soil moisture in Barind tract's. • To increase the crop productivity of the pattern	Barind, Rajshahi
1111	Effect of raised bed planting and potassium application on the mitigation of soil salinity and yield of maize	• To test the possibility that salinity damage can be reduced by elevating K fertilization rate • To study the effects of salinity and K fertilization interactions on maize yield and nutrient uptake; • To study K dynamics in soil as a function of the salinity of the irrigation water.	OFRD, Noakhali and Patuakhali
1112	Response of groundnut varieties to elite strains of Bradyrhizobium	• To study the effect of Bradyrhizobium inoculation and varieties at different locations and • To popularize the use of Bradyrhizobium inoculant instead of applying urea-N for groundnut production	Kishoregonj
1113	Response of chickpea varieties to elite strains of Rhizobium	• To study the response of Rhizobium inoculation with different varieties of chickpea • To study the effect of Rhizobium inoculation and varieties at different locations and • To popularize the use of Rhizobium inoculant instead of applying urea-N for chickpea production	Barind (Rajshahi)

Sl No.	Research Title	Objective(s)	Location
1114	Use of vermicompost for improving the yield and nutritional quality of cabbage	• To study the effect of vermicompost on the growth and yield of cabbage. • To assess the effect of vermicompost on the nutritional quality of cabbage.	OFRD, Rangpur
Improvement of Cropping Systems			
1115	Development of alternate cropping pattern Garden pea-Fallow-T. Aman against Fallow- Fallow-T. Aman rice	• To establish alternate cropping pattern against farmers' existing cropping pattern in coastal area. • Farmers' income will be increased.	MLT site, Bagerhat
1116	Improvement of existing cropping pattern Wheat-Jute-T. Aman rice	• To improve the existing cropping pattern by including new crop varieties • To increase crop yields and economic return of farmers	
1117	Performance of released potato varieties in Potato- Boro-T. Aman cropping pattern	• To evaluate the performance of the new potato varieties at Bogra • To increase production and economic return	Tangail, Bogra and Barisal
1118	Development of alternate cropping pattern Wheat-Jute-T. Aman rice against Wheat-Fallow-T. Aman rice cropping pattern in AEZ 22	• To develop an improved cropping pattern against existing cropping pattern • To increase crop production as well as income of the farmers	MLT site, Madobpur, Hobigonj
1119	Development of alternate cropping pattern Potato-Groundnut-T. Aman against existing cropping pattern Potato- Boro-T. Aman	• To evaluate the performance of the alternate cropping pattern in the Rangpur region • To increase system productivity and farmers income.	MLT site, Domar, Nilphamari
1120	Development of alternate cropping pattern Potato-Panikachu against Panikachu-T. Aman cropping pattern	• To develop an economically profitable and environment friendly cropping pattern over existing Panikachu-T. Aman cropping pattern • To increase production and economic return	Farmer field in Joypurhat
1121	Performance of released potato varieties in Potato- *Boro*-T. *Aman* cropping pattern	• To evaluate the performance of the new potato varieties at Bogra • To increase production and economic return	Farmers' fields of Joypurhat
1122	Development of Wheat-Mungbean-T. *Aman* cropping pattern against Fallow- *Boro*-T. *Aman* cropping pattern	• To evaluate the performance of Wheat-Mungbean-T. Aman rice cropping pattern against the existing cropping pattern • To develop a diversified, economically profitable and environmentally sustainable cropping pattern • To increase total production and farmer's income	Gouripur, Mymensingh

Sl No.	Research Title	Objective(s)	Location
1123	Development of improved cropping pattern Bitter gourd/Ash gourd/Cucumber-Mungbean-T. *Aman* against existing cropping pattern Bitter Gourd/Ash gourd/Cucumber-Fallow-T. *Aman* (local) at Phulbaria, Mymensingh	• To improve the existing cropping pattern by inclusion of mungbean • To increase soil health and economic return of farmers	Phulbaria, Mymensingh
1124	Development of alternate cropping pattern Mustard-Indian Spinach-T. *Aman* against Mustard-Fallow-T. *Aman*- in the coastal area of Khulna	• To increase system productivity of crops. • To increase farmers' income • To increase the vegetable production in the locality	MLT site, Bagerhat
1125	Improvement of Wheat–D. *Aus*/B. *Aus*/T. *Aus*–T. *Aman* (late variety) cropping pattern through intervention of short duration T. *Aman* variety	• To evaluate the improved cropping pattern in Bhola • To increase system productivity	MLT site, Bhola Sadar & Daulatkhan
1126	Improvement of the existing Cropping Pattern Fallow-*Boro*-T. *Aman* with Mustard-*Boro*-T. *Aman*-Rice	• To improve the existing cropping pattern for increasing cropping intensity and productivity by inclusion of mustard • To increase crop yield and farmers' income	MLT sites Brahmanbaria and Comilla districts
1127	Improvement of existing cropping pattern Potato–Foxtail millet–Fallow in the char lands of Munshiganj	• To improve the existing cropping pattern. • To increase production and economic return of farmers	MLT Site Munshiganj
1128	Development of four crop based cropping pattern	• To increase cropping intensity and productivity through rice based cropping system. • To sustain food security, poverty reduction, resource management and livelihood improvement of ever increasing populations. • To increase farmer's income, access to food and nutrition, employment opportunity and woman's participation in agriculture.	Station, Pabna Tangail, Dinajpur Kushtia, Faridpur Bogra, Rangpur Comilla, Shyampur, Jamalpur
1129	Intercropping chickpea with kaon in different plant population under rainfed condition in High Barind Tract	To find the agronomic and economic performance of intercropping chickpea with kaon	FSRD Site, Godagari, MLT Site, Amnura (Chapai-Nawabganj) and Shapahar (Noagoan)

Sl No.	Research Title	Objective(s)	Location
1130	Performance of sowing time of maize as intercrop with potato at farmers field in Dinajpur	• To evaluate the effect of potato intercropping on maize yield • To find out appropriate intercropping time of potato with maize and • To assess the economic performance of intercropping potato with long duration maize	MLT site Ranigonj, Dinajpur
1131	Performance of intercrop vegetables, pulses and spices crops with sugarcane at char land of Jamalpur	• To increase the land use efficiency • To increase total yield and farmers' income	MLT Site, Melandah, Mymensingh
1132	Intercropping of red amaranth, coriander and radish with pointed gourd	• To increase total productivity and economic return through intercropping system • To maximize land utilization	MLT site, Modhupur, Tangail
1133	Studies on intercropping of leafy vegetables with ash gourd	• To increase land use efficiency as well as farmers' income • To increase cropping intensity • To popularize leafy vegetables with ash gourd	MLT site, Netrakona
1134	Study on intercropping of radish/carrot/garlic/ onion with chilli	• To find out the suitable intercrop combination for higher productivity and economic return • To increase the cropping intensity and profitability	Mymensingh sadar
1135	Studies on intercropping of vegetable with hybrid maize	• To evaluate the efficiency of intercropping of vegetables with Maize • To increase yield and economic return of farmers	Phulpur, Mymensingh
1136	Studies on intercropping of red amarnath and coriander with cabbage	• To increase the land use efficiency as well as farmers' income. • To increase cropping intensity.	Trishal, Mymensingh
1137	Intercropping onion/ garlic with chilli in the haor areas of Kishoreganj	• To observe the performance of onion/garlic with chilli. • To increase production and economic return	Hossainpur, Kendua and Nikli upazilla, Kishoreganj
1138	Intercropping vegetables with maize in the haor area of Kishoreganj	• To know the performance of vegetable as intercrop with maize • To ensure food security and income haor farmers	Nikli upazilla, Kishoreganj
1139	Intercropping of cauliflower with brinjal	• To find out the agro-economic performance of intercropping cauliflower with brinjal • To increase cauliflower production	Shibpur, Narsingdi
1140	Intercropping of Sweet gourd with potato under different planting distance	• To see the performance of potato and sweet gourd in intercropping system • To find out the optimum spacing of sweet gourd to grow as intercrop with potato • To increase production and economic return	Daudkandi, Barura and Burichong, Comilla
1141	Intercropping of different short duration crops with sugarcane	• To find out the suitable vegetable for relay cropping with Sugarcane • To increase the cropping intensity • To boast up the farmers income	Barura, Comilla

Sl No.	Research Title	Objective(s)	Location
1142	Performance of intercropping of garden pea varieties with maize in the coastal area of Khulna	• To observe the feasibility of maize intercropped with garden pea varieties. • To increase the farmers income.	MLT site, Dumuria, Khulna
1143	Performance of sweet gourd relay with potato at varying plant population in High Barind Tract	To find out the optimum plant population of sweet gourd in potato field and increase the farmer's income.	FSRD Site, Godagari, MLT Site Sapahar (Naogoan) and MLT Site, Amnura (Chapai-Nawabganj)
1144	Performance of different cucurbit as relay cropping with potato in Kishoreganj	• To observe the performance of cucurbit as relay crops with potato • To ensure food security of the farmers	Kendua, Hossainpur and Sadar upazilla, Kishoreganj
1145	Relay cropping of different cucurbit vegetables with potato	• To find out the suitable vegetable for relay cropping with potato • To increase the cropping intensity • To boast up the farmers' income	Barura, Debidwar, Comilla and Sadar upazilla of Chandpur
1146	Performance of chickpea and mustard as mixed crop in southern coastal region	• To determine appropriate ratio of Chickpea and Mustard for growing as a mixed crop in the coastal area	MLT site, Kuakata, Patuakhali and MLT stie Amtali, Barguna and FSRD site, Razakhali, Dumki, Patuakhali
1147	Mixed cropping of mustard with lentil at different plant population at the charland of Bhuapur	• To verify the agronomic and economic performance of mixed cropping of lentil with mustard • To ensure the maximum utilization of the land for higher yield and income.	MLT site Bhuapur, Tangail
1148	Effect of planting method on Mustard- *Boro* mixed Cropping System	• To find out the suitable rice planting method in mixed cropping system and • To increase production and economic return of mixed cropping system	Muradnagar, Comilla, Brahmanbaria sadar and Hajigonj, Chandpur
1149	Validation of mungbean and cowpea mixed cropping in Bhola	• To find the suitable crop combination • To increase crop production as well as income of farmers.	MLT site, Bhola Sadar & Daulatkhan
1150	Intercropping of different vegetables with summer tomato	• To determine the performance of different vegetables as intercrops with summer tomato • To increase cropping intensity as well as farmers income of the location	MLT site Tularampur, Narail
1151	Relaying of cucurbits with potato in the cropping pattern Potato- B.*Aman*	• To find the suitable and economically viable crops in potato as relay crop • To improve cropping intensity and farmers income	MLT site, Munshiganj

Sl No.	Research Title	Objective(s)	Location
1152	Study on mixed lentil with mustard as relay crop with T. *Aman* rice	• To select the suitable mustard variety (s) as mixed crop with lentil under relay condition. • To increase pulse and oilseed production as well as farmers' income.	Atghoria, Pabna.
1153	Performance of Mungbean as mixed crop with sesame	• To find out suitable inter-crop combination of mungbean and sesame for higher yield • To increase the land use efficiency as well as farmers' income	MLT site, Atghoria, Pabna
1154	Development of alternate cropping pattern Mustard-Boro-T.aus-T. *Aman* against Mustard-Boro-T. *Aman* rice cropping pattern at Gabtoli, Bogra	• To evaluate the improved cropping pattern at Gabtoli, Bogra • To increase production and cropping intensity	Gabtoli, Bogra
1155	Intercropping vegetables with maize in the haor area of Kishoreganj	• To observe the performance of vegetable as intercrop with maize • To ensure food security and income haor farmers	Nikli upazilla, Kishoreganj
1156	Validation trial of sweet gourd relaying with T. *Aman* in the coastal area of Bangladesh	• To validate and disseminate the technology sweet gourd relaying with T. Aman to the farmers level • To increase production and farmers income	Patuakhali
1157	Improvement of Cropping pattern Wheat-Fallow-T. *Aman* against farmers existing pattern Fallow-Fallow-T. *Aman* (local) in coastal area of Bangladesh	• To introduce wheat in this region. • To increase economic return of farmers	MLT site, Kuakata, Patuakhali and MLT site Amtali, Barguna
1158	Development of Bitter gourd/ash gourd/cucumber-Mungbean-T. *Aman* cropping pattern at Phulbaria, Mymensingh	• To improve the existing cropping pattern by inclusion of mungbean • To increase soil health and economic return of farmers	Phulbaria, Mymensingh
1159	Improvement of Potato-Mungbean-T. *Aman* cropping pattern against Potato-Fallow-T. *Aman* rice	• To improve the existing cropping pattern by inclusion of Mungbean and to increase cropping intensity • To improve soil health and • To increase economic return of farmers	Langrabazar, Muktagacha
1160	Studies on intercropping of red amaranth, coriander and radish with Bottle gourd	• To increase land use efficiency and • To increase income of the farmers.	Netrakona MLT site
1161	Studies on intercropping of coriander with Carrot	• To increase land use efficiency • Introducing carrot cultivation in the locality and • Increase income of the farmers.	Netrakona MLT site
1162	Studies on intercropping of onion and coriander with cabbage	• To increase the land use efficiency as well as farmers' income. • To increase cropping intensity.	Trishal, Mymensingh

Sl No.	Research Title	Objective(s)	Location
1163	Performance of mustard relaying in T. *Aman* rice of different cropping pattern in Kushtia	• To select the suitable mustard variety for relay cropping with Mustard – T. aus - T. Aman cropping pattern. • To select the suitable mustard variety for relay cropping with Mustard – Boro rice - T. Aman cropping pattern. • To increase farmers income.	MLT site Kushtia Sadar
1164	Performance of Lentil as a Mixed Crop with Mustard in the Noakhali Region	• To verify the agronomic and economic performance of mixed cropping of lentil with mustard. • To ensure the maximum utilization of the land for higher yield and income.	MLT site, Feni and FSRD site, Hazirhat, Noakhali
1165	Development of alternate cropping pattern Sugarcane/Lentil/ Mungbean against sole sugarcane at Sugar Mill areas of Northern Districts	• To increase cropping intensity by growing more crops in the pattern • To improve soil health • To increase total production and income of the farmers	MLT site Gobindhagonj
1166	Improvement of cropping pattern Potato-Mungbean-T. Aus- T. *Aman* against Potato-Boro-T. *Aman* cropping pattern at northern region	• To Increase cropping intensity by growing more crops in the pattern • To increase total production and income of the farmers	MLT site Pirganj, Rangpur
1167	Improvement of existing cropping pattern Onion–Jute–T. *Aman* in the char land of Kurigram	• To evaluate the performance of the improved cropping pattern in Rangpur region. • To increase cropping intensity and active inclusion of Pulse crop in cropping pattern. • To maintain soil health. • To increase income and employment opportunity of farmers.	Kurigram
1168	Improvement of cropping pattern Potato–Mungbean–Jute–T. *Aman* against Potato–Jute–T. *Aman* cropping pattern	• To evaluate the performance of the improved cropping pattern in Rangpur region. • To increase cropping intensity, crop diversification and active inclusion of Pulse crop in cropping pattern. • To maintain soil health. • To increase income and employment opportunity of farmers.	Ulipur, Kurigram
1169	Improvement of existing cropping pattern Potato/Aroid(Mukhikachu)–T. *Aman* against Potato–Boro–T. *Aman* cropping pattern in the level barind tract of Rangpur region	To evaluate the performance of the improved cropping pattern the level barind tract of Rangpur region.	MLT site Pirganj and Gobindhaganj, Rangpur
1170	Improvement of existing cropping pattern by alternate cropping pattern Potato/sweetgourd-T. *Aman* in the char land	• To develop vegetable based alternative cropping pattern • To increase income of the farmers	Ulipur, Kurigram

Sl No.	Research Title	Objective(s)	Location
1171	Performance of khesari as relay crop with T. *Aman* rice in low lying areas of Narail	• To validate the performance of BARI khesari 2 as relay cropping with T. Aman rice • To increase the productivity of khesari and farmers income.	Tularampur, Narail
1172	Performance of improve Cropping Pattern Mustard– Jute- T. *Aman* against Khesari (Relay)- Jute- T. *Aman*	• To improve productivity of the existing cropping pattern • To increase the economic returns	MLT sites Tularampur, Narail
1173	Performance of short duration T. Aman rice varieties in the Potato– Mungbean –T.aus –T. Aman cropping pattern	• To evaluate performance of short duration rice varieties in the Potato – Mungbean -T,Aus –T. Aman cropping pattern. • To identify the suitable rice variety for the Potato – Mungbean -T,Aus –T. Aman cropping pattern	Pirganj, Mithapukur, Lahirirhat & On-Station, Rangpur
1174	Improvement of existing cropping pattern Potato– Bitter gourd/ sponge gourd/snake gourd-T. Aman with Potato-Bitter gourd+ Pointed gourd (as intercrop)–Onion (Bulb)	• To improve the existing cropping pattern and increase cropping intensity • To increase yield and economic return of farmers	MLT site Modhupur (Dhanbari), Tangail
1175	Development of alternate cropping pattern through Mustard - Mungbean-T. *Aman* in coastal area of Khulna	• To increase system productivity of crops. • To increase farmers income	MLT site, Bagerhat
1176	Development of alternate cropping pattern through T. *Aman*- Mustard – Jute in coastal area of Khulna	• To improve existing cropping pattern • To increase farmers' income	MLT site, Satkhira
1177	Performance of intercropping of short duration leafy vegetables with elephant yam in the coastal area of Satkhira	To evaluate the performance of different intercropping system with elephant yam in coastal saline area.	MLT site Satkhira
1178	Validation of fertilizer management of chilli + sweet gourd intercropping	To validate the developed fertilizer management of chilli + sweet gourd intercropping in farmers field	Jamalpur, Manikgong, Pabna and Banderban
1179	Validation of chilli and hybrid maize intercropping under different planting systems in hilly areas	To validate the developed chilli and hybrid maize intercropping systems in farmers field	Bandarban
1180	Validation of intercropping leaf-amaranth with brinjal	To validate the developed leafy vegetables with brinjal intercropping systems in farmers' fields	*Jessore and Bogra*
1181	Validation of spianch + sweet gourd intercropping systems	To validate the developed spianch + sweet gourd intercropping systems in farmers' fields	Jamalpur

Sl No.	Research Title	Objective(s)	Location
1182	Validation for fertilizer management of mukhikachu	To validate the developed fertilizer dose of mukhikachu in formers field	Pabna and Jamalpur
1183	Influenced of mulching and tillage on soil moisture conservation and yield of tomato in High Barind Tract	To find out suitable tillage practice and mulching for conserving residual soil moisture for tomato cultivation in HBT.	FSRD Site, Godagari and MLT Site, Amnura (Chapai-Nawabganj)
1184	Establishment of relay lentil with T. *Aman* rice as influenced by stubble height	• To find out the suitable time and soil moisture for successful relay lentil production • To find out the optimum height of rice stubble	MLT Site, Atgharia, Pabna, and FSRD site Godagari Rajshahi
1185	Effect of sowing date on yield of soybean in High Barind Tract	To find out the optimum sowing time for soybean cultivation	FSRD Site, Kadamshahar, Godagari and MLT Site, Amnura (Chapai-Nawabganj)
1186	Effect of planting date of pineapple in mango orchard at High Barind Tract	To find out the optimum planting time and suitable variety of pineapple in mango orchard at High Barind Tract	FSRD Site , Kadamshahor, Godagari, Rajshahi
1187	Performance of potato planter and harvester in Rangpur region	• To evaluate the performance of potato planter and harvester for potato cultivation at farmers' field condition. • To introduce the potato planter and potato harvester among the farmers	MLT site, Pirgonj, Rangpur
1188	Infuence of planting dates on yield and quality of true seeds of onion	To determine the appropriate planting date for true seed production of onion under the AEZ-25 at Joypurhat district.	Farmers fields of Bogra
1189	Effect of sowing dates and varieties on yield of mustard in Dinajpur	• To determine the optimum sowing date for maximizing the yield of mustard in Dinajpur area	ARS, Dinajpur
1190	Performance of BARI developed summer tomato variety	• To find out the performance of summer tomato varieties. • To popularize among the farmers and increase their income.	MLT site, Dinajpur and FSRD site Elenga and MLT site Ghatail, Tangail
1191	Effect of planting date on the performance of summer tomato	To find out optimum planting date for maximizing the yield of summer tomato cultivation	MLT site Tularampur, Narail
1192	Effect of different tillage system for wheat cultivation	• To select the suitable tillage system/cultural practice for wheat cultivation • To increase yield and economic return of farmers.	MLT site, Bhuapur and Ghatail, Tangail

Sl No.	Research Title	Objective(s)	Location
1193	Sowing time and plant spacing effects on the yield of mukhikachu	• To find out optimum planting date and spacing for the production of Mukhikachu. • To increase the yield and economic return of farmers. • To popularize and disseminate BARI developed high yielding variety of Mukhikachu among the farmer's	Gouripur, Mymensingh
1194	Influece of sowing date on the yield of coriander at charland	• To find out a suitable optimum sowing time for coriander production in char land • To increase the yield and economic return of farmers • To popularize and disseminate BARI developed high yielding variety of dhonia among the farmer's	Kalirbazar, Trishal
1195	Maize cultivation through conservation tillage practices in *Haor* area	• To see the effect of minimum tillage on maize • To introduce minimum tillage in maize growing area • To increase production and economic return	Singpur, Nikli, Kishoreganj
1196	Efficacy of fungicide against diseases of mustard in *Haor* area	• To evaluate the performance fungicide to control diseases of mustard • To popularize disease free mustard seed cultivation • To increase production and economic return	Karimganj and Nikli upazilla Kishoreganj
1197	Effect of irrigation for controlling root rot disease of lentil	• To control root rot disease of lentil by irrigation • To find out a suitable irrigation schedule for controlling root rot disease of lentil	MLT site Kaliganj, Jhenaidah
1198	Soil moisture and salinity management for maize/sunflower in coastal area	• To conserve soil moisture for maize/sunflower • To reduce salinity effect	Patuakhali & Barguna
1199	Crop intensification in fallow land through reserve water irrigation	• To increase crop intensity in fallow land • To use non saline reserve water	MLT site, Kuakata, Patuakhali and MLT stie Amtali, Barguna
1200	Performance of minor spices on coastal area	• To see adoption and yield potential of minor spices in coastal area • To popularize the spices varieties in the southern region	MLT site, Kuakata, Patuakhali and MLT stie Amtali, Barguna and FSRD site, Razakhali, Dumki, Patuakhali and Noakhali
1201	Evaluation of linseed genotypes/variety against varying degrees of salinity	• To evaluate the performance of linseed lines/ varieties at varying degree of salinity	Killar Char, Companiganj; Nolerchar, Hatia

Sl No.	Research Title	Objective(s)	Location
1202	Effect of different amount of water hyacinth as mulch on potato and tomato at the saline soil of Noakhali	• To evaluate the effect of different amount of water hyacinth as mulch on potato and tomato	FSRD site, Hazirhat, Noakhali
1203	Maximization of production and income through intensive vegetable cultivation with BARI developed varieties	• To evaluate the performance of BARI released vegetable varieties in terms of yield and economic return as compared to local varieties • To develop an intensive vegetable production model for maximizing per unit production and income • To know the changes in soil nutrient status due to intensive cropping (at 2-3 years interval)	BARI Central Farm (Block 24)
1204	Effect of plant spacing and varieties of bottle gourd for leaf purpose	• To evaluate BARI released bottle gourd varieties for leaf purpose • To increase yield and economic return of farmers	MLT site, Banaripara, Barisal, Tangail and Munshiganj
1205	Performance of garden pea relay with T. *A*man rice in Fallow-*Boro*-T. *A*man rice cropping pattern	To study the feasibility of growing Garden pea as vegetable crop (cash crop) in the T. Aman/Garden pea - Boro rice cropping pattern	Trishal and Muktagacha at Mymensingh and Kushtia
1206	Performance of different hybrid maize in *Rabi* and *Kharif* -I seasson	• To select suitable variety of maize in both Rabi and kharif I seasson • To increase production and economic return of farmers.	MLT Site Manikganj and MLT site, Shibpur, Puthia, Rajshahi
1207	Integrated management of common cutworm (*Spodoptera litura*) on mustard at farmers field condition	To evaluate the performance of IPM approach in controlling Common cutworm	MLT ste Sirajganj
1208	Seasonal incidence and management of common cutworm (*Spodoptera litura*) on aroid at farmers field condition	To observe the seasonal incidence of the pest and evaluate IPM approach	MLT Site Joypurhat
1209	Development of management approach against flea beetle (*Phyllotreta striolata*) attacking radish	• To find out most effective management option for flea beetle on radish • To know the damage severity of the pest	MLT site of Bogra and Barind
1210	Management of banana leaf and fruit beetle with netting and polyethylene bagging at farmers' field condition	• To reduce banana leaf and fruit beetle infestation by netting/ polyethylene bagging • To produce safe banana by reducing insecticide use	Farmers established banana field of Shibganj, Bogra

Sl No.	Research Title	Objective(s)	Location
1211	Development of management approach against tube spittle bug attacking ber	• To find out the most effective management option for Tube Spittle Bug on ber • To know the damage severity of the pest	MLT site, Shibganj, OFRD, Bogra and Barind Rajshahi
1212	Controlling of different insects through IPM method in watermelon	To control different kinds of insects and produce pesticides free watermelon	Sadar and Subornochar Upazilla, Noakhali
1213	Soil health improvement through inclusion of legume crops under existing agroforestry system	• To find out the effect of legume crops on soil health in Litchi based agroforestry system. • To increase the yield and quality of fruits.	MLT site, Atgharia, Pabna
1214	Performance of potato yam as affected by tree species and planting distance from tree base under agroforestry system	• To find out the suitable tree species grown in homestead area for potato yam production • To identify the optimum planting distance of yam from tree base	FSRD site, Pushpapara, Pabna
1215	Performance of turmeric varieties in mango-turmeric agroforestry system	• To popularize the BARI developed turmeric varieties in the hilly areas • To increase yield and farmers' income	Bandarban
1216	Yield potentiality of different cropping patterns in mango orchard as agroforestry system	• To find out the suitable cropping pattern at Mango orchard in Rangpur • To increase total production and income of the farmers	MLT site, Pirganj, Rangpur
1217	Effect of different levels of rice straw mulch on garlic under zero tillage cultivation	• To find a suitable level of rice straw mulch for growing garlic under zero tillage • To minimize the irrigation cost • To increase economic returns of the farmers.	MLT site, Atghoria, Pabna
1218	Performance of mungbean and sesame in raised bed system	• To evaluate the performance of mungbean and sesame in the raised beds made with bed planter • To know the effectiveness of raised bed in conserving the residual soil moisture	MLT site, Atghoria, Pabna
1219	Development of management approach against flea beetle (*Phyllotreta striolata*) of radish	• To find out the most effective management option for flea beetle of radish • To know the damage severity of the pest	MLT site, Shibganj, OFRD, Bogra
1220	Management of banana leaf and fruit beetle with netting and polyethylene bagging at farmers' field	• To reduce banana leaf and fruit beetle infestation by netting/ polyethylene bagging • To produce safe banana by reducing insecticide use	Shibganj, Bogra
1221	Performance of lentil varieties under different sowing methods in saline area of Patuakhali	• To find out the effective sowing method for increasing the yield of lentil. • To identify the suitable lentil variety for saline area.	MLT site, Kuakata, Patuakhali

Sl No.	Research Title	Objective(s)	Location
1222	Effect of different tillage methods for Mungbean cultivation	• To select the suitable tillage method for mungbean cultivation • To increase yield and economic return of farmers.	MLT site Kuakata and FSRD site Razakhali, Patuakhali
1223	Effect of planting time on the production of mungbean	• To find out the optimum planting time for mungbean cultivation in changing climatic condition. • To increase yield and farmer's income	Kushtia Sadar MLT site under OFRD, Kushtia
1224	Effect planting time on the early stolon production of Panikachu	• To find out the optimum time for planting panikachu • To increase stolon and rhizome production capacity of the BARI released variety and local genotypes	OFRD, Rangpur
1225	Late planting potential of BARI released tomato varieties in North-West region of Bangladesh	• To produce and supply tomato for kharif season/off season. • To identify suitable variety for late planting.	On-Station and FSRD site, Lahirirhat
1226	Effect of different postharvest storage treatments on keeping quality and shelf-life of tomato at ambient temperature	To find out suitable method(s) for maintaining quality and extending shelf-life of tomato at ambient temperature.	Rangpur
1227	Moisture monitoring in chickpea and lentil fields with different tillage options under rainfed condition in High Barind Tract	• To find soil moisture (%) at different growth stages of chickpea and Lentil and its effect on crop growth • To find out the optimum tillage options for utilization of maximum residual soil moisture	Kadamshahar, Godagari and Chapai-Nawabganj
1228	Effect of mulch and different tillage options on maize (*zea mays*) under minimum irrigation in High Barind Tract	To find out the suitable tillage methods and mulch application to conserve residual soil moisture for Maize cultivation	FSRD Site, Kadamshahar, Godagari and MLT Site, Amnura (Chapai-Nawabganj)
1229	Performance of different creeper vegetables on non-fruit trees at homestead area in High Barind Tract	To find out the suitable combination(s) of creeper vegetables and non-fruit trees in homestead area for vegetable production at HBT	FSRD Site, Kadamshahar, Godagari
1230	Effect of sowing dates and varieties on incidences of mustard aphid, *lipaphis erysimi* (kalt.) in rainfed condition	• To observe aphid population dynamics during different stages of growth of mustard varieties in rainfed condition • To find suitable date(s) of sowing • To find out relationships between aphid population and weather parameters associated with its growth.	FSRD Site, Kadamshahar, Godagari
1231	Evaluation of mulches for enhancing lac production in ber under rainfed condition in Bangladesh	• To observe the yield potentiality of lac in rainfed condition • To evaluate the performance of different mulches on soil moisture retention, soil temperature and weed suppression.	FSRD Site, Kadamshahar, Godagari
1232	Performance of short duration mustard as relaying with T. Aman rice	• To Increase cropping intensity. • To increase crop production as well as income of farmers.	Sunamgonj, Zakigonj and Moulavibazar

Sl No.	Research Title	Objective(s)	Location
1233	Influence of seed priming on the yield of maize, wheat and lentil at farmers field	• To find the performance of priming on the yield of maize, wheat and lentil • To select a suitable priming technique for maize, wheat and lentil	MLT site Bhuapur, Tangail
1234	Effect of sowing method on the performance of grass pea	• To find out the effective sowing method for grass pea cultivation in char lands of Bhuapur, Tangail • To increase production and farmers' income	MLT site Bhuapur, Tangail
1235	Performance of mukhikachu and turmeric under the niche of mango orchard	• To assess the performance of BARI released mukhikachu and turmeric varieties under the niche of mango tree • To increase crop production and farmers' income	FSRD site, Pushpopara, Pabna.
1236	Effect of tree management practices on the performance of field crops in the agroforestry system	• To know the effect of pruning of Eucalyptus trees on the growth and yield of associated field crops. • To increase the yield of crops as well as income of the farmers.	MLT site Gobindhagonj and MLT site Ulipur, Kurigram
1237	Impact assessment of climate change on major crop adaptation and resource utilization in farming systems	• to assess the effect of climate change on crop production • to assess the change of crop production and income generation • to evaluate resource utilization pattern under climate change • to generate information and advocate positive guidance for crop production at farming systems research	FSRD and all MLT sites
On-Farm Trials with Advance Lines and Technologies			
1238	Adaptive trial of BARI released wheat varieties	• To evaluate the performance of different wheat varieties • To increase production and income of farmers • To select the location specific suitable wheat variety	Dinajpur, Joypurhat, Manikganj, Munshiganj, Faridpur, Kushtia, Kishoreganj & Bhola
1239	Adaptive trial of BARI hybrid maize varieties	• To evaluate the performance of newly released hybrid maizevarieties in different locations • To popularize the hybrid maize varieties among the farmers	Bandarban, Kishoreganj, Bhola, Dinajpur , Faridpur
1240	Adaptive trial of lentil varieties at farmers' fields	• To evaluate the performance of newly released lentil varieties • To popularize the lentil varieties among the farmers	Mymensingh, Kishoreganj, Satkhira & Kushtia
1241	Adaptive trial of chickpea in charland area of Faridpur	• To evaluate the performance of newly released chickpea varieties • To popularize the chickpea varieties among the farmers	Sadar upazilla and Charbhadrason of Faridpur

Sl No.	Research Title	Objective(s)	Location
1242	Adaptive trial of blackgram varieties in *Haor* areas	• To evaluate the performance of blackgram varieties • To popularize the BARI black gram varieties among the farmers • To increase production and income of farmers	Sylhet & Kishoreganj
1243	On-farm adaptive trial with BARI released garden pea varieties in Faridpur	• To evaluate the performance of newly released garden pea varieties • To popularize the garden pea varieties among the farmers • To increase farmer's income	FSRD site, Hatgobindapur and Pearpur village of Sadar upazilla, Faridpur
1244	On-farm adaptive trial of mustard varieties	• To select the suitable variety of mustard for Bhola region • To increase crop production as well as income of farmers.	MLT site, Bhola Sadar, & Charfashion
1245	On-farm trial of sesame varieties	• To evaluate the performance of BARI released sesame varieties at farmers' field. • To increase yield and farmers' income	MlT site Munshiganj and Sylhet
1246	Adaptive trial of linseed varieties	• To select suitable variety of linseed • To increase crop production by utilizing fallow land as well as income of farmers.	Sylhet (3), Noakhali & Patuakhali
1247	Adaptive trial of BARI released groundnut varieties in char land eco-systems	• To evaluate BARI released groundnut varieties; • To popularize and disseminate BARI released groundnut varieties among the farmers.	MLT site Bheramara, Jamalpur and Mymensingh
1248	Adaptive trial of bottle gourd varieties	• To evaluate the performance of the variety in farmer's field. • To popularize and disseminate the BARI high yielding bottle gourd varieties.	MLT sites OFRD Kushtia and Bhola
1249	Adaptive trial of bottle gourd varieties for leaf purpose	• To popularize BARI released bottle gourd varieties as leaf • To increase yield and economic return of farmers.	FSRD site Elenga, Tangail
1250	Adaptive trial of BARI released sweet gourd variety at char land	• To evaluate the performance of BARI Sweet gourd variety at farmers field condition. • To increase production and income of farmers.	Sabjipara, Mymensingh sadar
1251	Adaptive trial of BARI released bitter gourd Variety	• To evaluate the performance of BARI Korola 1 at farmers field condition. • To increase production and economic benefit.	Phulpur , Mymensingh
1252	On-farm adaptive trial with BARI released pointed gourd varieties in Rajbari	• To evaluate the performance of newly released pointed gourd varieties • To popularize the pointed gourd varieties among the farmers	MLT site, Rajbari
1253	Adaptive trial of country bean varieties	• To evaluate the performance of country bean varieties in the farmers field • To popularize and disseminate BARI developed country bean varieties among the farmers • To increase production and economic return	Kendua, Kishoreganj

Sl No.	Research Title	Objective(s)	Location
1254	Adaptive trial of turmeric varieties	• To evaluate the performance of the new turmeric varieties at Joypurhat • To increase production and income of farmer	Farmers' fields of Bogra, Patuakhali, Kushtia, Satkhira
1255	Adaptive trial of summer tomato varieties	• To find out the performance of summer tomato varieties • To popularize among the farmers and increase their income.	Kushtia, Rangpur, Jessore, Comilla, Patuakhali, Pabna, Sylhet, Chittagong, Noakhali and Kushtia
1256	Adaptive trial of BARI summer onion variety	• To find out suitable summer onion variety in Rangpur region. • To increase farmers income	MLT site, Gobindogonj, Gaibandha
1257	On-farm adaptive trial of onion varieties	• To evaluate onion bulb production ability. • To popularize and disseminate BARI released onion varieties among the farmers.	Mujibnagar, Meherpur
1258	On-farm validation of garlic varieties	• To evaluate the performance of garlic varieties under farmers condition. • To popularize and disseminate BARI released garlic varieties among the farmers.	Kushtia, Bogra, Rangpur, Faridpur, Pabna, Comilla, Sylhet and Bandarban of OFRD, Lalmonirhat, Thakurgaon ,Magura & Joydebpur
1259	Adaptive trial of chilli varieties	• To select the suitable variety of chilli for Bhola region • To increase crop production as well as farmers' income.	MLT site, Bhola Sadar, Daulatkhan & Charfashion
1260	On- farm trial of BARI developed capsicum variety	To evaluate the performance of capsicum variety in farmers field	Shibpur, Narsingdi
1261	Adaptive trial of advanced lines of rapeseed	• To evaluate the performance of advanced lines of rapeseed in the farmers field. • To develop high yielding variety of rapeseed.	Pabna, Comilla and Netrakona
1262	Adaptive trial of advanced lines of sesame	• To evaluate the performance of advanced lines of sesame in the farmers field at different locations of Bangladesh. • To develop high yielding variety of sesame.	Faridpur, Kustia, Khulna and Patuakhali
1263	On-farm trial of BARI developed eggplant variety	To evaluate the performance of the variety at farmers' field	Comilla, Narasindi, Pabna, Rangpur, Chittagong, Tangail and Jamalpur
1264	On-farm trial of BARI developed tomato variety	To evaluate the performance of the variety under farmers' field	Rangpur, Jessore, Comilla, Patuakhali, Pabna, Sylhet, Chittagong and Bandarban

Sl No.	Research Title	Objective(s)	Location
1265	On-farm trial of BARI developed winter hybrid tomato	To evaluate the performance of winter hybrid tomatoat farmers' field	Comilla, Mymensingh, Narshingdi, Shyampur, Rangpur, Pabna, Jessore, Chittagong and Bandarban
1266	On-farm trial of BARI developed summer hybrid tomato variety	To evaluate the performance of summer hybrid variety at farmers' field	Comilla, Mymensingh, Narshingdi, Shyampur, Rangpur, Pabna, Jessore, Chittagong and Bandarban
1267	On-farm trial of BARI developed bottle gourd variety for summer	To evaluate the performance of the variety at farmer's field	Pabna, Rangpur, Comilla. Norshindi, Patuakhali, Jamalpur, Jessore and Chittagong
1268	On-farm trial ofBARI developed snake gourd variety	To evaluate the performance of snake gourd variety at farmers field	Comilla, Mymensingh, Patuakhali, Chittagong, Jessore & Rangpur
1269	On-farm trial ofBARI developed ridge gourd variety	To evaluate the performance of ridge gourd variety at farmers field	Comilla, Mymensingh, Patuakhali, Chittagong, Jessore & Rangpur
1270	On -farm trial of BARI developed country bean variety	To evaluate the performance of BARI Sheem 6 at farmers field	Jamalpur, Jessore, Chittagong, Rangpur, Sylhet, Mymensingh and Bandarban
1271	On farm trial of garlic variety	• To evaluate the performances of garlic variety at different agro-ecological zones • To popularize new garlic variety at different locations among the farmers to promote their adoption.	Bogra, Rangpur, Faridpur, Pabna, Comilla, Sylhet and Bandarban, Lalmonirhat, Thakurgaon, Magura and Joydebpur
1272	On farm trial of ginger variety	• To evaluate the performances of ginger variety at different agro-ecological zones • To popularize new ginger variety at different locations among the farmers to promote their adoption.	Bogra, Nilphamari, Sylhet andBandarban, Lalmonirhat, Rangamati & Khagrachari

Sl No.	Research Title	Objective(s)	Location
1273	On farm trial of oriander at char land	• To study the performance of coriander variety in char land • To popularize coriander variety at char land	Tangail, Jamalpur and Gobindogonj and Bogra, Gaibandha
1274	On farm trial of Black cumin at char land	• To study the performance of black cumin variety in char land • To popularize black cumin variety at char land	Tangail, Jamalpur and Gobindogonj of OFRD and Bogra, Gaibandha
1275	On farm trial of nugreek at char land	• To study the performance of fenugreek variety in char land • To popularize fenugreek variety at char land	Tangail, Jamalpur, Noakhali and Gobindogonj and Bogra, Gaibandha
1276	On farm performance of turmeric varieties	• To evaluate the performances of turmeric variety at Rajbari region • To popularize new turmeric variety among the farmers of rajbari	Rajbari,OFRD
1277	On-farm trial of BARI developed Glaldiolus varieties	• To evaluate the performance of the varieties in farmer's field	Gazipur, Bogra, Rangpur, Rajshahi and Jessore
1278	Adaptive trials with promising maize hybrids at different locations followed by potato cultivation	• To test the performance of single cross maize hybrids after potato cultivation and • Selection of desirable medium height stable better one(s).	Rangpur; Thakurgaon; Debigonj and Munshiganj
1279	Adaptive trials with low water required white grain hybrid maize in Barind area, Rajshahi	• To test the performance of locally developed promising low water required hybrid maize & selection of medium height best one(s) for Barind areas. • For quick dissemination of the target technology to the farmers.	Barind and
1280	Adaptive trials with BARI barley varieties in Southern belt, Barind tract and char areas of Rangpur	• To observe the performance of BARI barley varieties in the above areas. • To disseminate and popularize BARI barley varieties to the farmers of above areas.	Satkhira, Noakhali, Barind and Rangpur
1281	Adaptive trials with BARI kaon varieties in char areas	• To disseminate and popularize BARI kaon varieties to the farmers of char areas.	Jamalpur, Rangpur
1282	Adaptive trial with newly released potato varieties	To popularize the newly released improved potato varieties. (**Location**: Munshiganj, Bogra, Jessore, Jamalpur, Faridpur, Rajshahi, Rangpur, Tangail, Sherpur, Comilla, Chndpur, Patuakhali, Kushtia, Barishal, Satkhira, Bhola, Madaripur, Gopalgonj, Pahartoli & RARS, Chittagonj and Manikganj. Two to four trials in each of the above districts)	
1283	Adaptive trials with newly released sweet potato variety	• To test the farm level adaptability of newly released Sweet potato variety and get their feedback • To popularize the newly released variety at farm level. (**Location:** Jamalpur, Comilla, Bogra, Rangpur, Panchagar, Patuakhali, Jessore and Mymensingh)	

Sl No.	Research Title	Objective(s)	Location
1284	Adaptive trials with improved varieties of mukhikachu	To test the adaptability of the improved varieties of Mukhikachu at farmers' level. (**Location:** Comilla, Joypurhat, Rajshahi, Jamalpur, Bogra, Rangpur, Sherpur, Khagrachari, Jhenidah, Chuadanga, Patuakhali and Noakhali)	
1285	Adaptive trials with improved varieties of panikachu	To test the adaptability of the improved varieties of Panikachu at farmers' level. (**Location:** Comilla, Joypurhat, Rajshahi, Jamalpur, Bogra, Rangpur, Sherpur, Khagrachari, Jessore, Patuakhali and Noakhali)	
1286	On-Farm Trial of Bt Brinjal Varieties	To see the performance of Bt brinjal varieties at the farmers' field (**Location:** Manikganj, Jessore, Kushtia, Meherpur, Bogra, Rajshahi, Rangpur, Pabna, Tangail, Mymensingh, Jamalpur, Narsingdi, Comilla and Hathazari)	
1287	Adaptive trial with advance wheat lines at MLT sites	• To see the yield of new wheat lines in comparison to the widely grown check variety in different agro-ecological zones. • Evaluate the advance lines by the field evaluation committee of the National Seed Board (NSB)	Dinajpur, Rajshahi Jessore, Jamalpur Comilla, Barisal
1288	Adaptive trial with advance Durum lines at MLT Sites	To evaluate performances of durum lines in comparison to checks in different agro-ecological zones.	Dinajpur, Jessore, Ishurdi Faridpur
Integrated Farming Systems			
1289	Integrated Farming for Improving Livelihood of Resource Poor Farm Households in a Participatory Approach	• Optimization of homestead land use, availability of vegetable round the year • Utilization of women and child labour, adequate supply of vitamin A and C and also supply of good quantity of iron, calcium and thiamin. • Farmer's social status improved through intervention of new and profitable technologies as Income Generating Activities. • Minimize degradation of soil fertility and improve human nutrition by incorporating leguminous crops in the existing cropping pattern. • Strengthen linkage among researchers, extension agents and farmers to expedite technology transfer process.	FSRD site of Pabna, Tangail, Patuakhali, Barind (Rajshahi), Rangpur, Faridpur, Noakhali, Sylhet and Jamalpur
Socio Economic Studies			
1290	A socio-economic study on existing mixed and intercropping system at farmers.	• To know the existing multiple cropping practices • To assess the profitability • To identify the constraints and potentiality of those practices	Rangpur, Jessore, Jamalpur and Chittagong
1291	A socio-economic study of agroforestry practices.	• To document the agroforestry systems practiced by the farmers in the selected areas. • To examine the resource use efficiency of crops, vegetables, fruits and spices enterprises • To evaluate the profitability of major fruit trees through investment analysis • To make suggestions for future development of agroforestry practices	Noakhali, Rajshahi and Mymensingh

Sl No.	Research Title	Objective(s)	Location
1292	Study on the status of BARI developed technologies.	• To estimate the adoption rate of BARI developed technologies in the study areas. • To observe the management practice of the technologies in farm level • To evaluate the profitability of adopted technologies • To identify the problems related to adoption of the technologies	Rangpur, Jamalpur, Faridpur and Patuakhali
1293	A Socioeconomic study on the utilization pattern and impact of Super Granular Urea (USG) at farmer's field on different crops.	• To know the existing utilization pattern of the granular urea • To know the impact and productivity on different crops and vegetables applying USG • To know the economic profitability. • To identify the constrains and potential of USG	FSRD site, Tangail
1294	Impact assessment of integrated farming systems.	• To determine the extent of adoption of intervened technologies • To evaluate the impact of FSRD activities on resources use, productivity and socioeconomic development. • To explore the constraints of the technologies	FSRD sites Jamalpur, Noakhali and Tangail
1295	Socio-Economic study on Cabbage and Cauliflower production in Some Selected Areas of Bangladesh	• To know the agronomic practices of cabbage and cauliflower farmers; • To know the factors affecting on yield; • To estimate profitability of cabbage and cauliflower and compare its profitability with other competitive crops; and • To find out the constraints to cabbage and cauliflower cultivation.	Kushtia and Jessore
Transfer of Technology			
1296	Production program of different low water requirement crops in High Barind Tract	To validate and popularize the BARI developed low water requirement crop varieties in the drought prone area of High Barind Tract	Barind Rajshahi
1297	Seed production of BARI composite maize varieties	• To supply breeder`s seed to BADC & other organization; • To maintain the purity of the popular composite varieties; • To supply seed directly to farmers and in hilly areas tribal farmers.	Comilla, Rangpur
1298	Production of quality seed potato at farmers level through seed plot technique	• To improve the quality of farmer's seed potato • To increase the over all potato production of the country (**Loction**: All major potato growing districts (27 districts) of Bangladesh(about380 trials) such as Bogra, Chandpur, Chittagang, Comilla, Dinajpur, Faridpur, Gaibandha, Gazipur, Jamalpur, Jessore, Joypurhat, Kishorganj, Kurigram, Munshiganj, Nilphamari, Pabna, Patuakhali (RHRS), Patuakhali (OFRD), Rajshahi (Barind), Rajshahi (Shampur) Rangpur, Satkhira, Sherpur, Gopalgonj, Barisal, Bhola, Mymensingh and Thakurgaon).	
1299	Production program of Cereals, Pulses, Oilseeds, Vegetables and Spices in Different Agro-Ecological Zones	To validate and popularize the BARI developed crop varieties in different agro-ecological zone in Bangladesh. (**Location:** Bogra: BARI motorshuti 1, BARI motorshuti 3, BARI Dherosh 1, BARI mung 6, Bhola: BARI Mung 6, BARI Sarisha 11, 14 & 16, Kishoreganj : BARI Sharisa 14 &15, Kushtia : BARI Masur 7, Bandarban: BARI Hybrid Maize 9, BARI Sarisha 11, Faridpur: BARI Gom 28, BARI Masur 7, Sylhet: BARI Gom 25 and 28, BARI Hybrid Maize 9, BARI Khesari 2, BARI Sarisha 15 & 16, BARI Panikachu 1, BARI Malta 1)	

Sl No.	Research Title	Objective(s)	Location
1300	Variety demonstration of Wheat	• Evaluating new varieties by the farmers comparing with widely grown one • Preserving and disseminate seeds of farmers'-preferred varieties through farmers to farmers and • Increasing varietal diversity (**Location:** Faridpur, Barishal, Patuakh, Jessore, Jamalpur, Comilla, Sylhet, Khulna, Dinajpur, Jamalpur, Rajshahi, CARITAS, Din World Vision, Din PAUP, Dinajpur, ASRAY, Rajshahi,CARB, Rajshahi, Proshikha, Rajsh. Proshikha, Barisal, CSISA, Mymensi, LGED, (BARI-06, Noagaon-06=12)	
1301	Up scaling PTOS for improving productivity and sustainability in the drought prone (Barind) areas	Select suitable genotypes suitable for PTOS tillage systems at Barind Area.	Rajshahi

PLANNING AND EVALUATION DIVISION

1302	Tuber Crops Development Project (BARI Part) (2nd Revised) (July 2010 to June 2016)	To develop Tuber Crops	Gazipur, Munshiganj, Jamalpur, Bogra, Panchagarh, Comilla, Chittagong, Jessore, Barisal
1303	Enhancing Quality Seed Supply(BARI Part) (2nd Revised) (January 2011 to June 2016)	Enhancing quality seed supply	Gazipur, Jamalpur, Munshiganj, Rajshahi, Pubna, Bogra, Rangpur, Thakurgaon, Panchagarh, Dinajpur, Chittagong, Comilla Barisal Jessore
1304	Integrated Quality Horticulture Development Project (Phase II) (BARI Part) (July 2010-June 2015)	To integrated quality horticulture development project	Joydebpur, Jamalpur, Shibpur, Hathazari, Pahartali, Khagrachari, Ramgarh, Raikhali, Comilla, Ishurdi, Chapai Nawabgonj, Binodpur,

Sl No.	Research Title	Objective(s)	Location
			Burirhat, Thakurgaon, Debigonj, Patuakhali, Rahamatpur, Akbarpur, Jaintiapur, Jessore
1305	Farm Machinery Technology Development and Dissemination (BARI Part) (1st Revised) (July 2010 to June 2015)	To develope farm machinery technology	Gazipur, Manikganj, Narshindi, Rajbari, Barisal, Jhalokathi, Jhinaidah, Magura, Pabna, Sirajgonj
1306	Continuation and expansion of Pesticide Research in Pesticide Analytical Laboratory at BARI (May 2011 to June 2016)	To expans of pesticide research laboratory	Gazipur
1307	Mujibnagar Integrated Agricultural Development Project (1st Revised) (July 2011 to June 2016)	To integrate Agricultural Development of Mujibnagar	Meherpur, Chuadanga, Jhenaidah & Kushtia
1308	Integrated Agricultural Productivity Project (BARI part) (1st Revised) (July 2011 to June 2016)	To integrate Agricultural Productivity Project	Barisal, Barguna, Jhalakathi, Patuakhali, Rangpur, Nilfamari, KurigramandLalmonirhat
1309	Development and expansion of research and research infrastructure of BARI(July 2012- June 2016)	To develope and expansion of research and research infrastructure	Gazipur, Jamalpur, Faridpur, Munshigonj, Kishoregonj, Narshingdi, Pabna, Thakurgaon, Panchagarh, Dinajpur, Bogra, Rajshahi, Chapai Nawabgonj, Chittagong, Comilla, Khagrachari,

Sl No.	Research Title	Objective(s)	Location
			Jessore, Khulna, Magura, Satkhira, Moulvibazar, Sylhet,Barisal, Patuakhali, Rangpur, Lalmonirhat.
1310	Pirojpur-Gopalgonj-Bagherhat Integrated Agricultural Development Project (BARI part) (July 2012- June 2017)	To integrate Agricultural Development of Pirojpur, Gopalgonj, Gagherhat	Priojpur, Gopalgonj, Bagerhat.
1311	Citrus Development (BARI Part) (July 2013-June 2018)	To Integrate citrus development project.	Sylhet, Moulvibazar, Chattagong, Khagrachari, Rangamati, Panchagor, Gazipur, Narsinghdi, Jamalpur, Comilla.
1312	Rain water harvesting in Hilly creeks/ charas to Restore sustainable Agriculture –Based Livelihoods in Hilly areas of Chittagong Hill Tracts (January 2015 - June 2016)	To develope rain water harvesting technology in Hilly areas	Khagrachari, Rangamati & Bandarban

BANGLADESH RICE RESEARCH INSTITUTE

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PLANT BREEDING DIVISION

Sl No.	Research Title	Objective(s)	Location
1	Development of Upland Rice (Aus)	Development of modern rice genotypes suitable for dry direct seeded upland condition.	Gazipur
2	Development of Transplanted Aus Rice	Development of T. Aus varieties with short growth duration, high yield potential and better grain properties compared to BR26 or BRRI dhan48.	Gazipur
3	Improvement of rice for shallow flooded and deep water environment	Development of genotypes in combination with slow elongation, and submergence tolerance for shallow flooded deep water sub-ecosystem (flood water depth 0.5-1.0 m) and quick elongation for deep water condition (>2.0 m flood depth).	Gazipur
4	Development of Rainfed Lowland Rice (RLR) (T. Aman)	Development of genotypes superior to standard varieties BR11, BRRIdhan49 and BRRI dhan56 & 66 adaptable to rainfed lowland environment in T. Aman season.	Gazipur
5	Program on Development of Salt Tolerant Rice Variety for T. Aman and Boro.	Development of salt tolerant rice varieties for coastal region and Selection of rice genotypes suitable for coastal zone through farmers' participatory variety selection (PVS).	Gazipur and Satkhira
6	Development of Premium Quality Rice (PQR) T. Aman and Boro	Development of extra long grain and small grain with or without aroma into high yielding rice genetic background for domestic use and export.	Gazipur
7	Development of rice varieties for favorable boro	Development of improved genotypes with high yield potential, earliness and acceptable grain quality for irrigated ecosystem in Bangladesh.	Gazipur
8	Development of cold tolerant rice	Development of high yielding rice varieties tolerant to cold injury by introducing cold tolerant gene (s).	Gazipur
9	Development of High Yielding Rice Genotypes With Low Amylose Content	Development of high yielding indica rice variety with low amylose content for domestic use particularly for ethnic community and export.	Gazipur
10	Development of micronutrient enriched rice (MER) (Boro and T.Aman)	Development of high yielding rice varieties with improved nutritional quality in terms of high iron and zinc content in polished grain	Gazipur
11	Development of Insect Resistance Rice	Development of varieties resistant to BPH, WBPH, GM and GLH	Gazipur
12	Development of Disease Resistant Rice (T. Aman & Boro)	Development of varieties resistant to Bacterial Blight (BB) and Blast	Gazipur
13	Development of Submergence and Water Stagnation Tolerant Rice	Development of high yielding rice varieties tolerant to submergence (flash flooding) and medium stagnant water (MSW) stresses as flash flooding and water stagnation are the major constraints in the rainfed lowland rice ecosystem in Bangladesh	Gazipur and Rangpur

Sl No.	Research Title	Objective(s)	Location
14	Development of drought tolerant rice (IAPP Funded)	Development of high yielding rice varieties tolerant to drought stresses in the rainfed lowland rice ecosystem in Bangladesh	Gazipur, Rajshahi and Rangpur
15	International Network for Genetic Evaluation of Rice (INGER 2014-15)	Exchange of elite rice germplasm among the rice growing countries of the world and their evaluation, characterization and utilization under wider range of environments for ultimate use by farmers	Gazipur, Rajshahi, Rangpur, Barisal, Sonagazi, Kustia, Satkhira, Hobiganj and Bhanga
16	Development of Green Super Rice (GSR)(Boro and T Amam)	Development of less input but high yield potential with tolerance to different stresses rice varieties	Gazipur, Rajshahi and Satkhira
17	Breeding for Low water availability, Boro 2014-15	Evaluation of medium growth duration rice genotypes for adaptation against AWD condition with 5 days after water disappearing (DAWD) treatment	Gazipur and Rajshahi
18	Pyramiding Salinity and Submergence Tolerance Genes into BRRI dhan49 Through Marker Assisted Selection (ID-313)	Introgression of *SUB1* and *SALTOL* QTL into the genetic background of BRRI dhan49 through marker-assisted backcrossing	Gazipur

BIOTECHNOLOGY DIVISION

19	Development of rice variety through anther culture	To develop salt tolerant, low glycemic index (GI), aromatic and fine grain, high yielding rice variety through anther culture	Gazipur
20	Field performance of tissue culture derived lines	To select Agronomically desirable and high yield potential materials	Gazipur
21	Rice Transformation	To develop salt and drought tolerant transgenic rice lines	Gazipur
22	QTLs identification	• Identify yield enhancing QTL from a wild rice (*Oryza rufipogon)* andenhance the grain yield of elite Bangladeshi rice variety • To identify QTLs for salt tolerance both at seedling and reproductive stage	Gazipur
23	Marker Assisted Breeding	• To develop lines possessing *xa13* and *Xa21* BB resistance genes • To introgress *Sub1* gene to develop submergence tolerance BRRI dhan44	Gazipur

HYBRID RICE DIVISION

24	Development of Parental Materials	Development of hybrid rice variety with high yield, BB resistant high amylose content and fine grain	Gazipur, Rangpur and Bogra
25	Evaluation of parental materials & hybrids	To study the wider adaptability and yield potentiality of promising hybrids	Gazipur, Barisal, Rangpur and Rajshahi

Sl No.	Research Title	Objective(s)	Location
26	Seed Production of Parental lines and Hybrids	• To produce pure and good quality seed of CMS lines for subsequent use • Production of sufficient quantity quality hybrid seed of promising hybrids for subsequent use	Gazipur, Rangpur, Bogra and Bhanga

GENETIC RESOURCE DIVISION

27	Rice germplasm	Collection, characterization (morphological and molecular), evaluation and conservation of rice germplasm to enrich the gene bank for rice scientists.	Gazipur, Kushtia, Meherpur, Rajbari, Barisal, Sylhet, Faridpur, Barguna, Pirojpur, Jhalakathi, Netrokona, Mymensingh districts of Bangladesh
28	Seed production and variety maintenance	Maintenance of the nucleus seed stock and supply of breeder seed as per national demand.	Gazipur and 8 Regional Stations
29	Exploratory and genetic studies	Conduct problem related genetic studies for breeder seed and rice germplasm.	Gazipur
30	Documentation of technology	Development of technology packages with seeds and ready reference on genebank status	Gazipur

GRAIN QUALITY AND NUTRITION DIVISION

31	Pre-Screening of breeding lines	To evaluate physicochemical properties	Gazipur
32	Evaluation of commercial rice bran oil and soybean oil available in the market	To evaluate physical and chemical properties of edible oil	Gazipur
33	Purification and quality control of rice bran oil extracted from different rice bran	• To purify the bran oil extracted from different aged rice bran • To ensure the quality of rice bran oil	Gazipur
34	Formulation of rice noodle from rice flour	• To prepare nutrient enriched food product • To provide supplement food to regular diet • To introduce rice based food product as rice is abundant in Bangladesh	Gazipur

SOIL SCIENCE DIVISION

35	Fertility Assessment of Rice Soils and Nutrient use efficiency in rice	To assess fertility of rice growing areas and determine optimum fertilizer requirement.	Gazipur
36	Updating fertilizer doses through SSNM for BRRI released varieties	• To quantify rice yield gaps and yield responses to fertilizer application. • To evaluate the agronomic and economic performance of SSNM	Gazipur

Sl No.	Research Title	Objective(s)	Location
		• To evaluate the incremental profitability of SSNM in various production and grain and fertilizer price scenarios	
37	Updating fertilizer doses through RCM for BRRI released varieties	To develop software based fertilizer recommendation for rice.	Gazipur
38	Evaluation of P efficient rice genotypes	To screen P efficient rice genotypes at P deficient soil.	Gazipur
39	Study the interaction effect of nitrogen and potassium on modern rice cultivation	• To find out the suitable combination of N and K for MV rice cultivation • To study the N and K dynamics in soil and plant.	Gazipur
40	Increasing productivity and soil fertility through integrated nutrient management in farmers' fields under different cropping patterns.	• To develop appropriate nutrient management technologies for different cropping patterns • To increase total productivity of the individual cropping pattern	Gazipur
41	Identification and management of nutritional disorder (Open)	To determine upcoming nutritional disorders in rice under intensive rice cultivation with different fertilizer management practices	Gazipur
42	Long-term effect of some macro and micronutrients on yield and nutrition of lowland rice	• Determine nutrient deficiency problems in soil through missing element techniques • To see long-term yield trend of rice under different nutrient management practices • To evaluate the changes in soil physical, chemical and biological properties under long-term fertilization.	Gazipur
43	Study on the consequences of continuous wetland rice cropping	To evaluate the effect of continuous and intensive wetland rice culture on changes in soil fertility and yield of rice.	Gazipur
44	Integrated nutrient management (INM) for double/triple rice cropping pattern for maximizing yield and sustaining soil fertility	To evaluate the INM practices for continuous and intensive wetland culture for sustainable soil health and productivity.	Gazipur
45	Validation of BRRI Fertilizer Management Technology in Boro, T. Aus and T. Aman rice	To demonstrate BRRI developed fertilizer management packages in farmers' field.	Gazipur
46	Physico-chemical properties of coastal saline soils (Collaboration with RFSD)	To monitor the soil salinity and moisture level in coastal saline soil under different cropping patterns.	Gazipur
47	Green house gas emission study	To examine the GHG emission from rice field	Gazipur

Sl No.	Research Title	Objective(s)	Location
48	Green House Gas (GHG) Emission Trial	To determine the GHG emission from rice field under different water management	Gazipur
49	New fertilizer trial	To study the efficiency of new fertilizer on the yield of MV rice	Gazipur
50	Evaluation of Urea Super Phosphate (USP) on rice cultivation	To evaluate the USP fertilizer on rice cultivation.	Gazipur
51	Evaluation of USG and PU applicator on N–use efficiency for rice cultivation (Collaboration with FMPHT Division).	To evaluate the efficacy of USG and PU applicator on N–use efficiency for rice cultivation	Gazipur
52	Management of problem soils	To find out a suitable fertilizer management package for problem soils	Gazipur
53	Screening salt – tolerance materials (Collaboration with Physiology Div.)	To find out suitable salt –tolerance materials	Gazipur
54	Fertilizer management of saline soil for rice production	To find out a suitable fertilizer management package in combination with organic and inorganic fertilizer for higher crop production in salt affected soil.	Gazipur
55	Evaluation of soil management packages for rice production in char lands ecosystem (Collaboration with RFS Division).	To identify the proper soil management packages through organic and inorganic amendments in char lands ecosystem.	Gazipur
56	Integrated Soil management for rice production in Haor and Piedmont soil areas	To identify the proper soil management packages through organic and inorganic amendments in Haor and Piedmont soil areas.	Gazipur
57	Evaluation of fertilizer management packages for local T. Aman rice in tidal submergence ecosystem	To identify the best fertilizer management packages for local T. Aman rice in tidal submergence ecosystem	Gazipur
58	Integrated Soil management for rice production in drought prone areas	To identify the proper soil management packages through organic and inorganic amendments in drought prone areas.	Gazipur

PLANT PHYSIOLOGY DIVISION

59	Salinity tolerance	• To check the level of tolerance of advance breeding lines at seedling stage • To check the level of tolerance of rice germplasms at seedling stage	Gazipur
60	Submergence tolerance	• To identify tolerant germplasm for complete submergence • To observe elongation ability under complete submergence • To identify better recovery ability germplasm	Gazipur

Sl No.	Research Title	Objective(s)	Location
61	High temperature tolerance	To develop heat tolerant BRRI dhan28 and BRRI dhan29 by introgressing spikelet fertility loci (*qSF4.1*) through MAS	Gazipur
62	Drought tolerance	• Screening germplasm for drought tolerance at reproductive phase. • Evaluation of ALART and PVT materials under control drought condition in the net house.	Gazipur
63	Cold tolerance	To identify rice genotypes this can tolerate low temperature at seedling stage.	Gazipur

AGRONOMY DIVISION

Seeds and Seedlings			
64	Effect of different nursery bed media on rice seedling growth during Boro season	To improve the seedling quality under cold spell	Gazipur
65	Effect of seedling age on the growth and yield of rice in T. Aman season in tidal flooded ecosystem	To determine the optimum age of seedling	Patuakhali & Barisal
66	Effect of planting density and seedling age on growth and yield of newly BRRI developed long duration Boro, T. Aman and T. Aus Varieties	To find out the appropriate spacing and age of seedling for yield optimization of long duration Boro, T. Aman and T. Aus Varieties	Gazipur
67	Effect of spacing and seedling age on growth and yield of newly BRRI developed short duration Boro, T. Aman and T. Aus Varieties	To find out the appropriate spacing and age of seedling for yield optimization of short duration Boro, T. Aman and T. Aus Varieties	Gazipur
68	Effect of seed rate on yield of dry direct seeded rice in Aus season (new)	To find out the optimum seed rate for better yield	Gazipur
69	Evaluation of rice transplanter and BRRI weeder techniques and seedling raising on trays (AFACI)	• To grow quality seedlings suitable for transplanter by using tray • To minimize the cost of production by using transplanter and BRRI weeder	Amtoli, Barguna
70	Adjustment of optimum seedling age of hybrid rice varieties after potato harvest in northern region of Bangladesh	To find out optimum seedling age of suitable hybrid rice varieties after potato harvest for maximizing grain yield.	Gazipur, Rangpur

Sl No.	Research Title	Objective(s)	Location
71	Evaluation of cold tolerance ability of exotic and selected advanced lines at seedbed under various seeding dates in cold prone areas of Bangladesh	To find out suitable rice genotypes for cold tolerance at seed bed in cold prone areas to safe the farmers as well as to produce more production after potato harvest	Gazipur, Rangpur
72	Production of quality Boro seedlings in dry seed bed in cold prone areas	To compare different dry seed bed management options to produce quality seedlings and increased yield of rice	Gazipur, Rangpur
73	Determination of seedling age for Rice Transplanter	To find out suitable seedling age for rice transplanter.	Gazipur, Rangpur
74	Effect of seed rate to seedling establishment in dry seed bed condition for T. Aman Season	To determine the seed rate	Gazipur, Rangpur
75	Nursery management for enhanced survival of SUB1 introgressed genotypes of rice for submergence- prone areas	To determine the suitable Nursury management	Gazipur, Rangpur
Planting Practice			
76	Performance evaluation of modern rice varieties in Aus, Aman and Boro season in tidal flooded ecosystem	• To find out the suitable variety for selected location • To knowfarmer's reaction	Barisal & Patuakhali (Kolapara)
77	Effect of time of planting on growth and yield of advanced lines in Aman and Boro seasons	To determine suitable time of planting and selection of high yield potential genotypes	Gazipur
78	Performance of some modern BRRI varieties under tidal submergence prone areas	• To observe the performance of the lines/ varieties • To know the tidal situation in certain rice cultivating areas	Barisal
79	Escaping salinity effect on rice by adjusting planting time in Boro season (On going)	• To determine optimum planting time for higher productivity • To know the salinity status of selected area	Kolapara, Patuakhali
80	Performance of BRRI dhan62 under different spacing and levels of nitrogen (new)	To know the growth, yield and NUES under different spacing and levels of nitrogen	Gazipur

Sl No.	Research Title	Objective(s)	Location
81	Performance of Modern T. Aman and Boro varieties in farmers field at Pirojpur-Gopalgonj-Bagerhat	• To demonstrate new varieties in the farmers' field • To show the benefits of best agronomic practices	Pirojpur, Gopalgonj, Bagherhat,Mukshedpur, Gopalgong, Kashani, Kotalipara,Tongibari Pirojpur-Nesarabad and Najirpur Bagherhat.
82	Study on the performance of NERICA rice variety under different management and establishment methods in Boro and T. Aus season.	• To find out the appropriate agronomic management for yield optimization of NERICA rice varieties in Boro, T. Aman and T. Aus season • To find out suitable method of establishment	Gazipur
83	The effect of crop establishment methods for yield improvement of Aus rice.	To find out the appropriate agronomic management for the yield optimization of T Aus rice	Gazipur
84	Effect of crop establishment methods on late Boro (Braus) rice yield in northern cold prone area of Bangladesh	• To investigate the effects of different crop establishment methods on yield of late Boro rice. • To find out the appropriate crop establishment method for yield maximization in cold affected region	Rangpur region
85	Performance of hybrid and inbred rice at late planting situation (Braush) after potato harvest in cold prone areas of Bangladesh	To evaluate hybrid and inbred rice varieties at late planting situation after potato harvest	Gazipur & Rangpur
86	Rice yield maximization through agronomic management in Rangpur region	• To increase rice yield. • To increase farmers income.	Gazipur & Rangpur
87	Crop diversification through direct seeded rice with short duration variety and weed control options in high and medium high land of (low rainfall area) NW region of Bangladesh	• To increase cropping intensity. • To validate DSR technology and short duration varieties.	Different upazilas of Rangpur region

Sl No.	Research Title	Objective(s)	Location
88	Performance of dry direct seeded rice in different tillage practices and weeds control options by different herbicide sources under Rice-Wheat-Mungbean cropping system	• To identify the yield performance on different dry tillage conditions. • To investigate weed species and population growth on different tillage conditions. • To observe the herbicide source for effective control of weeds and their economics	Different upazilas of Rangpur region
89	Mother Trial with Sub1 genotypes under Participatory Variety Selection (PVS) in northern Bangladesh	To observe the phenotypic performance and different agronomic traits of Sub1 genotypes under PVS in submergence prone areas.	Gazipur & Rangpur
90	Participatory Variety Selection (PVS) - Mother trial	To observe the phenotypic performance and different agronomic traits of Sub1 genotypes under PVS in submergence prone areas	Gazipur & Rangpur
91	Participatory Variety Selection (PVS) Baby trial (on going- CURE Project).	Evaluation of genotypes chosen by farmers in their submergence prone environments under the management practices of farmers	Gazipur & Rangpur
92	Determination of planting time for Rice Transplanter	To find out suitable planting time for rice transplanter.	Gazipur & Rangpur
93	Crop establishment and fertilizer management of shallow deep water rice	To improve yield attribute of relatively shallow Deep water rice	Gazipur & Rangpur
94	Farm profitability and livelihood improvement in greater Faridpur Region	To determine suitable crop production system in Faridpur	Gazipur & Rangpur
95	Introducing improve cropping pattern for increasing cropping intensity and productivity in Rice-Rice system	• To increase the cropping intensity and productivity • To improve soil health • To increase the income	Gazipur & Rangpur
Fertilizer Management			
96	Validation of different nutrient management options for increasing yield of rice in Aus, Aman and Boro season in tidal flood prone ecosystem	To find out the suitable nutrient management option	Barisal, Barguna & Patuakhali
97	Effect of different rates of nitrogen application with and without vermicompost on growth and yield of rice	To increase the nutrient use efficiency	Barisal

Sl No.	Research Title	Objective(s)	Location
98	Management of nitrogen from different sources and methods of application in modern T.Aman varieties	To observe the N response of newly developed T. Aman varieties from different sources and methods.	Gazipur
99	Management of nitrogen from different sources and methods in modern Boro varieties	To observe the N response of newly developed boro varieties from different sources and method.	Gazipur
100	Evaluation of nitrogen use efficiencies of modern Boro varieties using prilled urea and USG applicator	• To observe NUEs of boro varieties by prilled urea and USG applicator • To observe N uptake, growth and yield of rice • To determine best source of N management	Gazipur
101	Field validation of LCC and USG application in Transplanted Aman and Boro rice	To find out the performance of LCC and USG in farmers field	Gopalgonj-Mukshedpur, Gopalgong, Kashani, Kotalipara,Tongibari Pirojpur-Nesarabad and Najirpur Bagherhat-Mollarhat and Fakirhat
102	Evaluation of different methods of NPK briquette placement on HYV rice yield and nutrient status during T Aman, T.Aus and Boro season at different locations	• To find out the effectiveness of NPK briquette placement FDP for rice in tidal flooded soil and heavy texture soil. • To recommend NPK briquette placement method for sustainable rice production for different seasons in varying soil texture	Gazipur
103	Performance of NPK briquette deep placement on the growth, yield and nutrient status of HYV rice during Boro, T. Aus and T. Aman season at different locations	• To find out the effectiveness of NPK briquette deep placement in wetland rice under tidal flooded condition. • To recommend NPK briquette for sustainable rice production of T. Aman rice.	Gazipur, BRRI Farm, Sagordi, Barisal Farmer's field at Babuganj, Barisal
104	Performance of UDP technology on the growth, yield and nutrient status of HYV rice as influenced by plant spacing during Boro T. Aus and T. Aman season.	• To find out the proper spacing and effectiveness of UDP technology for yield maximization of wetland rice. • To recommend appropriate spacing for UDP technology sustainable rice production	Gazipur

Sl No.	Research Title	Objective(s)	Location
105	Effect of urea deep placement time on the performance of HYV rice and nutrient status during Boro T. Aus and T. Aman season	• To find out the appropriate time of UDP and its effectiveness for rice yield maximization. • To recommend the appropriate time of UDP application for sustainable rice production in T Aman season	Gazipur
106	Validation of Nutrient and Crop management options for yield maximization of BRRI dhan51 a submergence tolerance variety at Rangpur region in T. Aman season	To identify and recommend appropriate nutrient management and other crop management option of BRRI dhan51 a submergence tolerant varieties for yield maximization	IAPP Lalmonirhat Sadar Pirgasa,Nilphamari and Sayedpur
107	Validation of Nutrient and Crop management options for yield maximization of BRRI dhan52 a submergence tolerance variety at Rangpur region in T. Aman season	To identify and recommend appropriate nutrient management and other crop management option of BRRI dhan51 a submergence tolerant varieties for yield maximization	IAPP Lalmonirhat Sadar Pirgasa,Nilphamari and Sayedpur
108	Performance of liquid fertilizer (Magic growth) on growth and yield of BRRI dhan28	To evaluate the liquid fertilizer (Magic growth) as a source of N for rice cultivation	Gazipur
109	Evaluation of the performance of urea spray on the growth and yield of BRRI dhan28	To evaluate the performance of urea spray technology for rice cultivation.	Gazipur
110	Effect of nitrogen levels on growth and yield of BRRI hybrid rice in Boro season	• To know growth and yield of hybrid rice under different levels of nitrogen • To know NUEs of hybrid rice	Gazipur
111	Bioregulation potential of Arbuscular Mycorrhiza under water stress condition in Aerobic rice	To elucidate the water stress tolerance mechanism of Aerobic rice inoculated with Mycorrhiza spp.	Gazipur
112	Effect of different sources of N fertilizer on weed infestation of HYV rice	• To find out the effect of different sources of N fertilizer on weed infestation • To find out the source of N fertilizer for less weed infestation	Gazipur
113	Nitrogen management in local Aman varieties in Barisal (AFACI:Ongoing)	• To increase the N use efficiency • To increase the yield	Bakergonj & Uzirpur, Barisal and Patuakhali Sadar
114	Response of NERICA rice to drought tolerant rice varieties	To determine the optimum rate of nitrogen fertilizer for getting higher yield in NERICA-1 and NERICA-10 varieties.	Gazipur

Sl No.	Research Title	Objective(s)	Location
115	Fertilizer management for quick after submergence recovery (on going- IFAD Project).	To find out the fertilizer management of submergence recovery	BRRI/RS, Rangpur
116	Determination of optimum fertilizer for maximizing yield in Bhanga	To find out the optimum rate of fertilizer.	BRRI/RS, Bhanga
117	Response of Zn fertilizer in High Zn rice	• To find out the relation of Zn application in grain yield of high Zn rice • To find out the amount of Zn in rice grain	BRRI/RS, Bhanga
118	Method of N application and dose in establishment of rice by Rice Transplanter	To determine N application method in crop establishment by rice transplanter	BRRI/RS, Bhanga
Weed Management			
119	Effect of nitrogen levels and weed management on weed abundance in irrigated Boro rice under AWD irrigation system	To find out interaction effect of weeding treatments and N levels	Gazipur
120	Validation of different integrated weed control options for yield maximization in Boro season in tidal flood prone ecosystem	• To identify appropriate weed management option • To know the weed species available	Nolchiti, Jhalokathi and Betagi, Bargona
121	Effect of Gramaxone (non-selective herbicide) in controlling aquatic weeds in single Boro area	• To reduce labour cost during land preparation • To increase productivity	Aguiljhara, Barisal
122	Effect of continuous application of herbicide on weed species shift and resistance	• To identify weed species that shift due to continuous application of herbicide • To identify resistance weed species for specific herbicide	Gazipur
123	Validation of weed control option and crop management for yield maximization of and BRRI dhan56 in draught condition at Rangpur region in T. Aman season	To identify and recommend appropriate weed and crop management option for yield maximization of BRRI dhan56 in draught condition	IAPP Lalmonirhat Sadar Pirgasa,Nilphamari and Sayedpur
124	Validation of weed control option and crop management for yield	To identify and recommend appropriate weed and crop management option for yield maximization of BRRI dhan57 in draught	IAPP site at Lalmonirhat Sadar,Pirgasa,

Sl No.	Research Title	Objective(s)	Location
	maximization of and BRRI dhan57 in draught condition at Rangpur region in T. Aman season	condition	Nilphamari and Sayedpur
125	Validation of weed control option and crop management for yield maximization of and BRRI dhan62 at Rangpur region in T. Aman season	To identify and recommend appropriate weed and crop management option for yield maximization of BRRI dhan62 in Rangpur region.	IAPP site at Lalmonirhat Sadar, Pirgasa, Nilphamari
126	Weed seed bank dynamics in Maize-Mungbean- Rice cropping pattern at BRRI, Gazipur	To observe abundance of different weed species.	Gazipur
127	Potential allelopathic effect of some rice cultivars on Echinochloa crus- gali	To asses the weed suppressing potential of rice cultivars on *Echinochloa crus- gali.*	Gazipur
128	Evaluation of candidate herbicides (on going)	To find out the efficacy of new herbicides	Gazipur
129	Study on cost effective weed management in T. Aman and Boro rice	To demonstrate cost effective weed management in the farmer's field	Gopalgonj-Mukshedpur, Gopalgonj sadar,Kashani, Kotalipara,Tongibari Pirojpur-Nesarabad and Najirpur Bagherhat-Mollarhat and Fakirhat
130	Weed control methods on productivity of direct dry seeded rice in Aus season	To determine effective weed control method	Gazipur
131	Influence of weed management options on seasonal variation of N use efficiency of prilled urea by applicator in northern region of Bangladesh	To find out suitable weed management option for higher N use efficiency of prilled urea by applicator	Gazipur
132	Weed control of rice established by Rice Transplanter (new)	To determine suitable weed control method in rice	Gazipur
133	The effect of land preparation options for	To determine suitable land preparation options	Gazipur

Sl No.	Research Title	Objective(s)	Location
	Zero plow pan soil for yield maximization in Boro - Fallow - T Aman cropping pattern (new)	for zero plow pan soil for yield maximization in Boro - Fallow - T Aman cropping pattern	

ENTOMOLOGY DIVISION

134	Survey & Monitoring of Rice Arthropods	To determine the incidence and abundance patterns of insect pests and their natural enemies at BRRI farm and in different AEZs for better management of rice pests.	Gazipur
135	Studies on rice insect pest and natural enemy ecology	To study the ecology and development of insect pest of rice.	Gazipur
136	Biological Control of rice insect Pests	To evaluate the role of natural enemies in controlling rice insect pests.	Gazipur
137	Crop Loss Assessment	To determine relationship between pest damage levels and yield losses.	Gazipur
138	Integrated Pest Management	Study on the different aspects of management of rice insect pest.	Gazipur
139	Host Plant Resistance	Identification of resistant sources against rice insect pests.	Gazipur
140	Vertebrate pest management	Management of rat in the rice field	Gazipur
141	Rice field rat management by using trap barrier system (TBS).	To evaluate different barrier systems for rice filed rat management	Gazipur

PLANT PATHOLOGY DIVISION

142	Survey and monitoring of rice diseases in selected climate vulnerable ecosystems	To investigate the present status of different rice diseases in different climatic environments	Gazipur, Rajshahi, Barisal, Hobiganj and Comilla
143	Confirmation of the standard differential set of blast isolates	• To confirm the reaction pattern of selected standard differential blast isolates with blast resistant genes • To reduce the number of isolates for standard differential set of Bangladesh	Gazipur
144	Multidisciplinary approach of screening rice germplasms against BB disease.	Detection of BB resistant genes in selected germplasms using tightly linked molecular marker and pathogenicity test	Gazipur
145	Identification of major blast resistant genes in land races of Bangladesh using MAS and pathogenicity	To find out blast resistant source(s) of *Pita, Pita-2, Pish, Pib, Pi9, Piz*and *Pi40*	Gazipur
146	Screening advanced breeding lines against bacterial blight, sheath blight, blast and false smut	To test advance breeding lines against bacterial blight, sheath blight, false smut and blast diseases.	Gazipur

Sl No.	Research Title	Objective(s)	Location
147	Pyramiding major blast resistant genes into BRRI dhan29 and premium quality rice	• To introgress Pish Pita-2 and Pi9 into the background of BRRI dhan29 • To develop durable blast resistant photo insensitive premium quality rice	Gazipur
148	Introgression of blast resistant gene into BRRI dhan47	To develop durable blast resistant variety harbouring *Pi40* and *Pi9*	Gazipur
149	Purification of locally improved Aus variety Mala through pure line selection for Barisal region	To develop and disseminate suitable Aus variety for tidal non-saline sub-ecosystem of Barisal region	Gazipur and Barisal
150	Evaluation of blast resistant multiline variety of IR64	To develop suitable blast resistant rice variety for Bangladesh	Gazipur
151	Evaluation of blast resistant multiline varieties of IR49830 in tidal non-saline ecosystem of Barisal	To develop suitable blast resistant rice variety for tidal non-saline sub-ecosystem	RS, Barisal
152	Development of mass inoculation technique of false smut disease	To develop mass screening technique against false smut disease	Gazipur
153	Reaction and recover ability of latest T. Aman BRRI varieties to tungro disease under natural condition	To know the varietal performance against rice tungro disease	RS, Comilla
154	Impact of climate change on rice blast disease development	To find out a relationship between climatic factors and their change for blast disease epidemics	RS, Rajshahi
155	Identification of red eelworm and damage phenomenon on rice	To identify the harmful species of red eelworm and their nature of damage on rice	RS, Kustia
156	False smut disease of rice: Distribution, severity and yield loss in Bangladesh and development of a qualitative modelling framework	• To identify current status of false smut in Bangladesh and its geographical distribution • To develop yield loss assessment model • To identify the factors associated with false smut spread	Gazipur
157	Effect of brine solution on rice seed borne disease, germination and seedling vigor	To find out the effect of brine solution in controlling seed borne disease.	Gazipur
158	Management of seedling blight disease in seedling raising for mechanical transplanter	To control the disease through seed treatment in different seedling raising technique	Gazipur

Sl No.	Research Title	Objective(s)	Location
159	Evaluation of new chemicals against false smut disease of rice	To find out the effective chemicals suitable for False Smut disease control.	Gazipur
160	Biological control of *Rhizoctonia solani* with *Trichoderma* strains	To control *R. solani* with *Trichoderma spp.*	Gopalgonj
161	Development of false smutmanagement packages	To develop management packages of False smut for farmers	Gazipur
162	Demonstration on integrated rice disease management in farmers' field	To demonstrate rice disease management practices at farmers' field and to create awareness.	Barisal, Ranjpur, Pirojpur, Gopalgonj and Bagerhat
163	Specialized training on rice disease management and healthy seed production	To train up extension personnel on rice disease management and healthy seed production.	Kustia, Meherpur and Chuadanga

RICE FARMING SYSTEM DIVISION

164	Survey farming system database for Bangladesh	To create farming systems database for Bangladesh	Chittagong Hill Tracts, Greater Barisal, Khulna
165	Development of Resource Conservation Technologies	To generate and evaluate resource saving farming systems technologies for increasing farm income	Gazipur
166	Development of Cropping Systems and Component Technologies for Favorable Environment (Irrigated condition)	To develop agro-economically profitable cropping patterns and component technologies for Favorable Environment (irrigated condition)	Gazipur and Hobiganj
167	Development of Cropping Systems and Component Technologies for Saline environment	To develop agro-economically profitable cropping patterns and component technologies for saline environment	Satkhira
168	Development of Improved Cropping Systems for drought prone area	To develop agro-economically profitable cropping patterns and component technologies for drought prone area	Gazipur
169	Development of Cropping Systems for submergence condition	To develop agro-economically profitable cropping patterns and component technologies for submergence condition	Hobiganj
170	Development of Cropping Systems under rainfed condition	To develop agro-economically profitable cropping patterns and component technologies under rainfed condition	Bandarban sadar

Sl No.	Research Title	Objective(s)	Location
171	Crop Modeling	To generate future scenario of rice based cropping systems	Gazipur
172	Validation and Delivery of cropping of Systems Technology	To disseminate agro-economically profitable farming systems technologies under different ecosystem	Hobiganj and Faridpur
173	Capacity building and technology transfer	To improve the knowledge base of extension personnel and farmers	Gazipur, Kustia, Rangpur, Barisal, Satkhira
174	Research and Development under cross cutting issues	To improve the productivity of different farming system component	Gazipur and Kustia

FARM MECHANIZATION AND POSTHARVEST TECHNOLOGY DIVISION

175	Development of Agricultural Machines	• Development of farm machinery adaptable to rice eco-system • Reduction of human drudgery	Gazipur
176	Milling and Processing Technology	To reduce loss, improve quality and addition of value to the farm products	Gazipur
177	Development of stores and storage technology	To increase shelf life of rice in store	Gazipur
178	Renewable Energy Technology	Development of renewable energy extraction technologies from solar, agri-residues and waste products	Gazipur
179	Popularization of BRRI developed farm machinery and Postharvest technology	• To create Awareness about the benefit of using BRRI machines among the farmers • Motivation of the local manufacturer to manufacture the BRRI agricultural machinery	Gazipur

IRRIGATION AND WATER MANAGEMENT DIVISION

Sl No.	Research Title	Objectives (in short)	Location
180	Water Requirement	To generate water efficient technologies for rice cultivation	Gazipur
181	Water Management for rice cultivation in climate change situation	To obtain optimum rice yield under changing climatic environment	Gazipur, Rajshahi and Pubna
182	Land and Water Resources Use for Sustainable Crop Production	To increase land and water productivity for improving food security and livelihoods in the coastal zones	Gazipur, Kustia and Sonagaji
183	Surface and Ground Water Assessment	To identify the aquifer characteristics and quality of groundwater in Bangladesh and its relationship with rainfall	Gazipur and All Regional Stations
184	Renewable energy for irrigation	To identify some renewable energy sources for irrigation	Gazipur
185	Water Management Technologies Demonstration and	To increase the irrigation efficiency and water productivity by appropriate management of water through BRRI developed water	Barisal, Khulna, Satkhira, Kurigram,

Sl No.	Research Title	Objective(s)	Location
	Dissemination at Farmers' Field	management technologies.	Lalmonirhat, Nilphamari, Rangpur, Gopalganj and Bagerhat

AGRICULTURAL ECONOMICS DIVISION

186	Farm Level Evaluation of Modern Rice Cultivation in Bangladesh	• To determine the region-wise adoption rate of different MV Aus, T. Aman and Boro seasons, • To estimate the yield of different modern and local rice varieties in different seasons; and • To determine the socio-economic and varietal constraints to the adoption of MV rice in different regions.	Gazipur
187	Estimation of Costs and Return of MV Rice Cultivation at Farm Level	To formulate proper guideline for setting procurement and support price, input subsidy, etc of MVs rice production.	Gazipur
188	Estimation of Costs and Return of MV Rice Cultivation at the Farm Level	• To determine the costs and return of MV Aus, T. Aman and Boro rice cultivation in Bangladesh, • To estimate the factor and income share of MV rice cultivation in different seasons; and • To evaluate the changes in costs and return and input utilization pattern over the years.	Gazipur
189	Surface Water Utilization Pattern and its Scope for Crop Production in different Hydrological Zones of Bangladesh	• To identify the location specific surface water availability and its utilization for rice and non-rice crop production; • To determine the scope for further increase of surface water utilization; and • To identify the constraints and prospects for surface water utilization.	Gazipur
190	Shifting of Crop Land into Mango Orchard: A New Challenge and Opportunity for Farming in Rajshahi Region	• To assess the socio-economic status of mango orchard farmers; • To estimate the relative profitability of mango production; • To identify the factors responsible for crop land transformation/shift into mango orchard; • To explore the problems of cultivating mango at farm level; and • To suggest future policy guidelines for transformation of land in Barind area.	Gazipur
191	Projection Irrigation Cost over Next 20 Years by Using ARIMA Models	• To assess the existing irrigation costs for crop production; and • To predict the irrigation cost up to 2030 by using ARIMA models; and • To suggest policy guidelines for formulating irrigation policy in Bangladesh.	Gazipur
192	The Scenario of Varietal Re-naming and Consumers' Preference of Rice in Bangladesh	• To list down the names of the major rice varieties which are processed by the millers and processors. • To examine the branding and packaging methods of processed MV rice at the mill gate areas.	Gazipur

Sl No.	Research Title	Objective(s)	Location
		• To find out the reasons behind changing the original name and what extent extra benefit earned by the traders; and • To suggest policy implications to prevent this mal-practice.	
193	Economics of Cost Effectiveness of Rice Milling System in Bangladesh: The Case of Business Efficiency	• To evaluate the cost efficiency of rice mills. • To find out and determine the factors responsible for profitability of rice mills • To identify the constraints and suggest their remedies of rice milling.	Gazipur
194	Value Chain of some Niche and Aromatic Rice Varieties in Bangladesh	• To critically analyze the value chain of aromatic rice examining different actors and their activities; • To identify the constraints and opportunities in rice value chain and to recommend measures for further improvement.	Gazipur
195	Impact assessment of SPDP on Quality Seed and Rice Production	• To assess the awareness/ interest about demonstrated rice varieties among the farmers. • To evaluate the contribution of SPDP for ensuring the availability of seeds to increase rice production • To find out the role of program in expanding the BRRI rice varieties in the adjacent localities. • To identify the problems of seed production at farmers level.	Gazipur

AGRICULTURAL STATISTICS DIVISION

196	Yield Assessment through crop-cuts	To estimate rice yield through crop cuts at farmers' field.	Gazipur
197	Stability Analysis of BRRI Varieties	• To determine the stability index of BRRI proposed and released varieties. • To generate season, year and location-wise database on BRRI varieties.	Gazipur
198	Development of Computer Programs	• To develop computer programs for management and analysis of data. • To develop software for administration/ accounting systems of BRRI.	Gazipur
199	Multivariate Analysis of BRRI Varieties	To determine factors affecting farmers' and consumers' preference to a rice variety.	Gazipur
200	Genetic Coefficient of BRRI Varieties	To determine genetic coefficient of BRRI varieties	Gazipur
201	Spatial Database for BRRI varieties	• To create a geo-reference database of BRRI varieties • To construct adoption and productivity maps of BRRI varieties in Bangladesh	Gazipur
202	Geographical Information System (GIS)	• To map the submergence areas used for rice cultivation • To delineate submergence areas suitable for growing newly developed submergence tolerant BRRI varieties. • To improve knowledge of the geographical	Gazipur

Sl No.	Research Title	Objective(s)	Location
		distribution of contamination of soil and irrigation water with arsenic, in order to target arsenic management strategies to the most contaminated areas.	
203	Characterization of rice environment in Bangladesh	• To develop environmental indices for rice growing areas of Bangladesh. • To map the areas suitable for BRRI varieties in Boro, Aus and T.Aman seasons.	Gazipur

FARM MANAGEMENT DIVISION

204	Labor efficiency as affected by direct supervision for rice cultivation	To find out the effect of different period of direct supervision of labor on labor efficiency.	Gazipur
205	Monitoring the laborers' wage rate for rice cultivation around different locations of Bangladesh	To document farmers' labor management practices for rice cultivation	Different locations of Bangladesh
206	Management and utilization of land and other resources. • Rice seed production (TLS) • Breeder seed production in collaboration with GRS division and plant breeding division • Management of land, labor, farm implements, flower garden irrigation and drainage etc.	Better utilization of farm land and other resources for smooth running of research activities of BRRI	Gazipur

ADAPTIVE RESEARCH DIVISION

207	Validation of Technologies	Validate the matured technologies at farm level	Gazipur
208	Dissemination of Technologies	Conducting on-farm trials for dissemination of technology	Gazipur
209	Seed Production and Dissemination Program (SPDP)	• To encourage the farmers for production, processing and storing of quality seeds at on-farm level. • To enhance adoption and dissemination of BRRI varieties through exchanging seeds among the farmers. • To get feedback information from the farmers and DAE personnel about BRRI varieties & and other technologies such as USG.	Gazipur

Sl No.	Research Title	Objective(s)	Location
210	Promotional activities	To update knowledge and skill of farmers and stalk holders on modern rice cultivation technology.	Gazipur
211	Enrichment of own seed stock	To produce quality seeds of BRRI released recent varieties for adaptive research trials during Aus, Aman and Boro seasons.	Gazipur

TRAINING DIVISION

212	Capacity building and technology transfer through training	To disseminate BRRI developed technologies	Gazipur
213	Evaluation of imparted training program.	To determine the effectiveness of training program.	Gazipur
214	BRKB and its improvement.	To disseminate rice production technologies through electronic media, do overall improvement of BRKB	Gazipur

WORKSHOP MACHINERY AND MAINTENANCE DIVISION

215	Design and development of power transmission system of a power unit	• To design a gearbox with mechanism of two forward and a backward speed • To design a chassis of a power unit	Gazipur
216	Design, development, and modification of self-propelled reaper	Development of user friendly self-propelled reaper to boost-up the crop production	Gazipur
217	Modification of a self propelled field mower	• To modify the chassis of the self propelled field mower • To attach lawn mower with tractor/power tiller for increasing field capacity	Gazipur
218	Modification of wheel of self-propelled reaper for wet-land condition	• To design the suitable wheel for wet-land condition • Test and evaluate the newly designed wheel at wet-land as well as dry-land condition	Gazipur
219	Database development for repair and maintenance of BRRI's farm machineries and auto-mobiles of a power unit.	To create database about repair and maintenance information of farm machineries and automobiles	Gazipur
220	Feasibility study of solar energy use in Agricultural Machinery	• To study the solar energy use in agricultural machinery • To evaluate the aptness of solar energy use in agricultural machinery	Gazipur
221	Development of management system for farm machinery maintenance	• To maintain maximum performance of the machinery, automobiles and equipments • To utilize them efficiently at any time	Gazipur
222	Survey the status of engineering workshops at different places in Bangladesh	• To identify the working facilities and limitations of the workshops • To gather information about the potential capacity of manufacturer, repair, maintenance and the area of services of these workshop	Gazipur

BANGLADESH JUTE RESEARCH INSTITUTE

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JUTE AND ALLIED FIBRE CROPS

Sl No.	Research Title	Objective(s)	Location
1	On farm yield trial of advanced line of white jute	To evaluate the yield and adaptability of different advanced lines at farmers field in different regions as well as on stations	Manikganj, Rangpur, Kishoreganj, Faridpur and Chandina.
2	Zonal yield trial of high yielding breeding lines of white jute	Possibility of deriving new varieties with higher yield.	Manikganj, Faridpur, Rangpur, Kishoreganj, Chandina.
3	Zonal yield trial of some salt tolerance advance lines of white jute	Different AEZ evaluation their performance.	Kalapara, Patuakhali, Banarpota, Satkhira
4	Advanced yield trial of early seeding, higher yield and low temperature tolerant breeding lines of white jute.	Breeding lines with better performance in respect of early seeding and yield.	JAES, Manikganj
5	Preliminary yield trial of high yielding white jute strains	Breeding lines with distinct character, higher yield and quality fibre.	Manikganj, Rangpur, Faridpur, Kishoreganj and Chandina
6	Evaluation of some high yielding salt tolerant white jute line in coastal region of Bangladesh	To develop high yielding salt tolerant jute varieties by 21 cross combination	Kalapara, Patuakhali, Banarpota, Satkhira
7	Screening of germplasm for tolerant to drought of jute	To study the drought tolerant lines with high yield	Kaligonj, Lalmonirhat
8	Evaluation of advanced lines of white jute for higher yield	Possibility of deriving lines with higher yield than the existing cultivars	JAES, Manikganj
9	Study and selection of different desirable lines for high yield	High yielding desirable lines selection	JAES, Manikganj and green house premises, Dhaka
10	Hybridization among the selected breeding lines of white jute	To accumulate desirable genes from diverse parents	JAES, Manikganj.
11	Selection of indigenous and exotic germplasm of white jute for short day and low temperature tolerance	Identification of short day and low temperature tolerant lines.	JAES, Manikganj.

Sl No.	Research Title	Objective(s)	Location
12	Maintenance of nucleus seed stock of white jute	To maintain genetic composition of the varieties	JAES, Manikganj
13	Maintenance of advanced lines of white jute	To maintain true breed parents	JAES, Manikganj
14	On farm yield trial of an advanced line of tossa jute	To evaluate the yield and adaptability of different advanced lines at farmer's field in different regions as well as on stations	Manikganj, Chandina, Rangpur, Kishoreganj, Monirampur and Dinajpur
15	Advanced yield trial of two breeding lines of tossa jute	To develop early sowing tossa jute	Manikganj, Chandina, Rangpur, Kishoreganj, Monirampur and Dinajpur
16	Preliminary yield trial of promising lines of tossa jute	Identification of lines are better than the control	JAES, Manikganj, Faridpur, Kishoreganj and Rangpur.
17	Anatomical studies in relation to fibre compactness of some promising lines of tossa jute	To identification of higher fibre content germplasm.	JAES, Manikganj
18	Hybridization among the selected genotypes of tossa jute	To isolate of desirable progeny	Greenhouse Premises BJRI, Dhaka.
19	Confirmation of F_1s	Identification of desirable F_1 plants.	Green house, BJRI and JAES, Manikganj
20	Screening of germplasm for tolerant to salinity of tossa jute	To isolate deirable salinity tolerant lines	Bannarpota, Satkhira
21	Screening of germplasm for higher fibre yield and desirable traits of tossa jute	To selection of superior progeny with desired characters	JAES, Manikganj and Centrall station, Dhaka.
22	Screening germplasm lines of tossa jute against water logging tolerance	To isolate of desiarable water logging tolerants lines	Central Station, Dhaka and Tarabo.
23	Evaluation of segregating lines of tossa jute	Selection of plants from different segregating lines and maintenance of seeds in future program	Central Station, Dhaka, JAES, Manikganj

Sl No.	Research Title	Objective(s)	Location
24	Screening germplasm of tossa jute for drought tolerance	To isolate desirable drought tolerant lines	Kaligonj, Lalmonirhat and Godagari, Rajshahi
25	Maintenance of nucleus seed stock of tossa jute	To maintaine distinctness, uniformity and stability of the varieties. will be maintained	JAES, Manikganj, Monirampur and Dinajpur.
26	Maintenance of parents of tossa jute	To maintain different strains	JAES, Manikganj and Central station, Dhaka and Moniramp
27	On farm yield trial of new breeding line of Kenaf 1641/C	To rapid growth and high biomass per unit area.	Manikganj, Faridpur, Rangpur, Chandina, Kishoreganj, Monirampur, Dinajpur, Patuakhali and Tarabo
28	On farm yield trial of new breeding line of smooth Mesta SAMU'93	Smooth plants for easy handling at harvest and high biomass in poor land.	Manikganj, Faridpur, Kishoreganj, Rangpur, Chandina, Monirampur, Dinajpur and Patuakhali.
29	Zonal yield trial of early maturing Kenaf	Development of Kenaf varieties with short field duration coupled with more biomass.	Manikganj, Rangpur, Faridpur, Kishoreganj, Chandina, Monirampur, Patuakhali.
30	Zonal yield trial of high yielding vegetable Mesta (*H. sabdariffa* L.)	To development of vegetable Mesta varieties with containing higher amount of edible delicious leaves with foliaceous smooth calyces fruit.	: Manikganj, Faridpur, Kishoreganj Patuakhali.
31	Hybridizationamongthesel ected genotypes of Kenaf and Mesta	To isolate desirable progeny	Green house premises, BJRI, Dhaka.
32	Screening of Kenaf and Mesta genetic resources for stress tolerance	To isolate potential parental materials will be selected for breeding program.	Manikganj
33	Evaluation of segregating lines of Kenaf and Mesta	Selection of plants from different segregating lines and maintenance of seeds in future program.	Dhaka and Manikganj

Sl No.	Research Title	Objective(s)	Location
34	Selection of high yielding vegetable Mesta	To develop high yielding vegetable mesta containing desirable traits	Dhaka and Patuakhali
35	Anatomical studies in relation to fibre compactness of preliminary lines of Kenaf and Mesta	Fibre compactness of different advanced lines of Kenaf and Mesta for fibre yield and quality.	Manikganj.
36	Maintenance of nucleus seed stock of Kenaf and Mesta	To maintain the distinctness, uniformity and stability of the varieties	Manikganj, Rangpur, Monirampur, Patuakhali
37	Maintenance of parents of Kenaf and Mesta	To maintain different strains	Dhaka and Manikganj
38	Characterization of deshi jute (*Corchorus capsularis*) germplasm collected from different sources	To evaluate morpho-agronomic attributes and, disease and pest status of jute, kenaf and mesta germplasm	JAES, Manikganj and Pakhimara, Patuakhali
39	Characterization of tossa jute (*Corchorus olitorius*) germplasm collected from different sources	To evaluate morpho-agronomic attributes and disease and pest status of jute, kenaf and mesta germplasm	JAES, Manikganj & Pakhimara, Patuakhali
40	Characterization of mesta (*Hibiscus sabdariffa*) germplasm collected from different sources	To evaluate the desired genotypes for utilization in mesta breeding programme	JAES, Manikganj and Chandina
41	Characterization of kenaf (*H. cannabinus*) germplasm collected from different sources	To identify better accessions compared with the check varieties.	JAES, Manikganj and Kishoreganj
42	Characterization and evaluation of some selected deshi jute (*Corchorus capsularis*) germplasm collected from different sources	To evaluation and documentation of *Corchorus capsularis* germplasm for utilization in genetic improvement programme.	JAES, Manikganj and Kishoreganj
43	Characterization and evaluation of some selected tossa jute (*Corchorus olitorius*) germplasm collected from different sources	To evaluation and documentation of *Corchorus olitorious* germplasm for utilization in genetic improvement programme	JAES, Manikganj and Kishoreganj
44	Characterization and evaluation of some selected kenaf (*Hibiscus cannabinus*) germplasm collected from different sources	To evaluation and documentation of kenaf (*Hibiscus cannabinus*) germplasm for utilization in genetic improvement programme	JAES, Manikganj and Jessore
45	Regeneration of *Corchorus* and *Hibiscus* germplasm for conservation	To get more quality seeds with higher percentage of germination for storage and future utilization.	Dhaka, Manikganj, Jessore and Dinajpur

Sl No.	Research Title	Objective(s)	Location
46	Monitoring the viability of jute, kenaf and mesta germplasm conserved in short and long term condition and their maintenance	To establish the differences of germination percent between initial germination stage and present germination condition	Gene Bank, BJRI, Dhaka
47	Development of genetic transformation protocol of *Corchorus capsularis* for its improvement	To introduce genes in jute against other important agronomic traits.	GRSDivision, BJRI, Dhaka
48	Optimization of genetic transformation protocol from the explants of kenaf	Introducing desirable genes with important agronomic traits.	GRS Division, BJRI, Dhaka
49	Molecular characterization of jute and allied fibre germplasm through DNA fingerprinting	To establish of molecular characterization protocol.	GRSDivision, BJRI, Dhaka
50	Screening of Jute Germplam for Salt Tolerance in Ms Medium and Field Condition Using Physiological and BiochemicalParameters	To identify salinity tolerant jute genotypes.	GRSD, BJRI and salinity areas in Satkhira and Patuakhali district.
51	Production of breeders seed of deshi jute, tossa jute and kenaf	To produce quality seeds of jute and kenaf every year and supplying to end user(BADC, NGO).	Manikganj, Rangpur, Faridpur,Kishorganj, Chandina, Monirampur, Nasipur and Tarabo
52	Production of nucleus seed stock of jute and kenaf	To produce nucleus seed that will be used for breeder seed production in next cropping season.	Manikganj, Monirampur and Nasipur
53	Comparative study of seed yield of different tossa jute varieties under direct seeding and stem cutting	To compare with direct seeding and stem cutting.	Manikganj, Rangpur and Monirampur,
54	Identification of sustainable varieties of white jute, tossa jute and kenaf for seed production in non traditional area (salinity) of Bangladesh	To use of suitable seed production in saline area.	Pakhimara, Patuakhali
55	Effect of sowing date on fibre yield and yield attributes of advanced breeding line BJC-5003 of deshi jute	To ascertain optimum time of sowing for higher fibre yield.	JAES, Manikganj, RS, Rangpur, RS, Kishoreganj, SS, Jessore and SS, Patuakhali.

Sl No.	Research Title	Objective(s)	Location
56	Effect of sowing date on fibre yield and yield attributes of advanced breeding line OM-1GM1 (BLG) of tossa jute	To ascertain optimum time of sowing for higher fibre yield.	JAES, Manikganj, RS, Rangpur, RS, Kishoreganj, SS, Jessore and SS, Patuakhali.
57	Effect of sowing date on fibre yield and yield attributes of advanced breeding line 1641/C (KE-3) of Kenaf	To ascertain optimum time of sowing for higher fibre yield	JAES, Manikganj, RS, Rangpur, RS, Kishoreganj, SS, Jessore and SS, Patuakhali.
58	Cost effective jute cultivation by manipulating weeding and herbicide management	To produce jute on a cost effective manner through manipulating weeding and herbicide.	JAES, Manikganj
59	Study the effect of weedicides trial for cultivation of jute crop in field condition	To reduce the management cost	JAES, Manikganj, RS, Chandina, Comilla, SS, Jessore, SS, Dinajpur at jute fibre production season
60	Seed yield and yield contributing characters of advanced breeding line of tossa jute O-3820 as influenced by different date of sowing at late season	To feasible of producing seed of advanced breeding line of tossa jute in late season.	JAES, Manikganj; SS, Monirampur, Jessore and SS, Nasipur, Dinajpur.
61	Seed yield performance of deshi jute as influenced by different spacing at late season	To study the effect of different spacing on seed production of *capsulaeris* jute in the late season.	JAES, Manikganj; RS, Rangpur and SS, Monirampur, Jessore.
62	Field evaluation of different jute accessions on different sowing dates across environments	To screen out germplasm for short day tolerance.	Dinajpur
63	Screening of germplasm of erect leaf for higher and quality yield of jute	To find out the erect leaf type germplasm of jute	Green house,BJRI, Dhaka
64	Dry matter partitioning of variety O-795	To study adaptability and suitability of germplasm for cultivation of jute in the marginal condition.	Green house, BJRI, Dhaka

Sl No.	Research Title	Objective(s)	Location
65	To determine the optimum harvest time and fibre quality of kenaf crops at field conditions	To fit kenaf in a profitable cropping system	JAES, Manikganj
66	Assessment of jute seed qualproduced in different regional and sub-stations of BJRI	To maintain appropriate technique of seed collection, processing and storage.	Physiology Laboratory, BJRI.
67	Studies on seed yield and quality of different jute varieties across environments	Identify of suitable location for quality jute seed production	Manjkganj, Dinajpur, Monirampur, Patuakhali
68	Studies On seed yield and quality of different kenaf varieties across environments	Identify of suitable location for quality kenaf seed production	Manjkganj, Dinajpur, Monirampur and Patuakhali
69	Study the nutrient requirement of NPK & S on advance Capsularis breeding line BJC-5105	To obtain suitable dose for the production of advance line.	Manjkganj.
70	Study the nutrient requirement of NPK & S on advance olitorius breeding line blue seeded ovate lance late glossy leaves (BLG)	A suitable dose for the advance olitorious breeding line blue seeded ovate lance late glossy leaves.	Manjkganj and kishorganj
71	Study the effect of nutrient NPK and S on advanced breeding Kenaf line KE-3	To determine the nutritional requirements of the advanced breeding Kenaf line KE-3 for its optimum growth and yield.	Manjkganj and kishorganj
72	Updating of existing fertilizer recommendation for seed production the most popular jute variety BJRI Tossa pat-4	To update the requirement of nutrients for Jute seed production and to know the effect of nutrients on seed quality and storability	JAES, Manjkganj
73	Seed health study of jute, kenaf and mesta seeds for recommendation	To produce of disease free quality seeds and fibre	Plant Pathology laboratory, BJRI.
74	Comparative study on health status of HC-3 andHC-95 seeds harvested at different maturity stages	To find out optimum time of harvesting of seed kenaf to get maximum healthy seeds.	Faridpur and Chandina Regional Stations, BJRI
75	Screening of germplasms against stem rot disease of kenaf and mesta	To selection of disease resistant kenaf and mesta variety	JAES, Manjkganj
76	Screening of germplasms of jute against stem rot in sick bed	To develop of stem rot tolerant germplasm	JAES, Manjkganj

Sl No.	Research Title	Objective(s)	Location
77	Comparative study on fungal diseases of promising lines of jute and allied fibre crops	To compare different pipeline varieties of jute and allied fibre crops against disease along with a check variety	JAES, Manjkganj
78	Comparative study on varieties/accessions of jute leaf mosaic disease.	To make a comparative assessment of resistance of varieties/accessions of jute against leaf mosaic disease	Greenhouse, C S and Chandina RRS
79	Evaluation of new seed treated chemicals against different seed borne fungal diseases of jute	To search of more effective chemical fungicide	Plant Pathology laboratory, Dhaka
80	Survey on diseases of jute and allied fibre crops	To measure of disease and pest infestation yield loss	Regional stations and Sub stations o
81	Studies on the pest infestations of promising lines in different locations	To determine the pests status	Central station, Kishoregonj, Faridpur, JAES, Manikgonj and Rangpur.
82	Effect of selected plant materials against jute yellow mite (Ento-2/2013)	To find out an alternate control measure of chemical pesticides	Srinagar, Munshigonj and Bathuli, Dhamrai.
83	Screening of jute germplasm for resistance /tolerance against yellow mite	To identify resistance/ tolerance of jute germplasm of yellow mite	JAES, Manikgonj; Pakhimara, Patuakhali; Kishoregonj; Chandina; Rangpur, Monirumpur, Jessore.
84	Screening of Kenaf and Mesta germplasm for stance/tolerance against spiral borer and mealy bug	To identify resistant germplasm	JAES, Manikgonj; Pakhimara, Patuakhali; Kishoregonj; Chandina; Rangpur; Monirumpur, Jessore.
85	Varietal assessment against jute yellow mite	To assess varietal yield loss due to jute yellow mite infestation	Central station, Dhaka and JAES, Manikgonj
86	Bio-ecological studies of the Spiral borer, *Agrilus acutus* Thumb.	To quantify the yield loss	Central station, Dhaka and JAES, Manikganj
87	Effect of new acaricides on jute yellow mite under field condition	To determine the efficacy of new pesticides	Central station, Dhaka and JAES, Manikganj

Sl No.	Research Title	Objective(s)	Location
88	Effect of new insecticides against jute hairy caterpillar under field condition	To determine the efficacy of new insecticide	Central station, Dhaka and JAES, Manikganj
89	Survey of insect and mite pest of jute and allied fibre crops	To forecast and monitoring of insect and mite pest status and yield loss	All Regional and sub-stations of BJRI
90	Isolation of microbes from various natural sources and study of their retting properties	To isolated microbes for accelerate the retting speed and improve the quality of jute and allied fibres	Central station, Dhaka and JAES, Jagir, Manikganj.
91	Studies on retting and fibre properties of recently released jute varieties of Tossa and Deshi jute	To evaluate the retting and fibre properties of various released varieties of *C. capsularis* and *C. olitorius* jute.	Jute Research Regional Stations of Rangpur, Faridpur, Kishoreganj, Chandina, Monirampur and JAES, Jagir, Manikganj.
92	Collection of retting effluents from different jute growing districts and study of their retting properties	To determine the microbial activity of retting effluents of different jute growing districts of Bangladesh	Central station, BJRI and all regional and substation.
93	Cost analysis of different covering materials used on "Jag" and their effect on fibre quality	To identify the cost effective weighting materials and their effect on fibre quality.	JAES, Manikgonj.
94	Comparative study on the fibre obtained from the jute plants retted with leaves, without leaves and ribbon retting technique and their cost benefit analysis	To explore the possibility of quality fibre production.	Manikgonj, Rangpur, Faridpur and Monirampur.
95	Effect of plant population on yield and quality of jute fibre	To maintain optimum plant population for maximum yield and quality of jute fibre.	JAES, Manikgonj and all regional & sub-station.
96	Up-gradation of SMR fibre	To develop methodologies for the improvement of the fibre quality	JAES, Manikgonj
97	Study of the mechanical efficiency of Power operated Jute Ribboner.	To produce quality jute fibre with profitability in water scarcity areas.	Manikgonj, Rangpur, Faridpur, Kishoregonj, Monirampur

Sl No.	Research Title	Objective(s)	Location
98	Role/Impact of optimum field duration of jute crop in. ribbon retting in respect of it's technical and economic viability	To find out as a suitable ribboning technique.	JAES, Manikgonj, Rangpur, Chandina and Monirampur
99	Screening of potential hydrolytic microbes for extracellular enzymes and determination of their enzymatic activity on jute retting	To screen the potential hydrolytic jute retting fungus isolated from different sources specially farmers field for extraction of retting enzymes	Central station, Dhaka and JAES, Jagir, Manikganj.
100	Preparation of fungal inoculums package with promising fungus tobe used in jute retting in water scarce jute growing areas	To develop an appropriate fungal inoculum package	Central station, Dhaka, JAES, Jagir, Manikganj
101	Study on different improved retting and traditional retting management in water scarce areas in respect of cost of retting tank water pollution and quality jute fibre	To overcome these problem	JAES, Jagir, Manikganj
102	Investigation of jute retting microbes in coastal/ saline area and study of their retting efficacy for obtaining better jute fibre	To assess the prospect of jute cultivation at the saline zones.	Central Station, Dhaka and Jute Research Sub-station at Patuakhali.
103	Demonstration and on-farm training on improved jute retting technologies and fibre grading technique for the jute growers	To disseminate mature location specific jute retting technologies and fibre grading system to the jute growers	Regional and Sub-stations of BJRI.
104	Development and performance study of Power Jute Ribboner	To find out the impact of Power Jute Robboner on quality jute fibre production as well as socioeconomic condition of the farmers.	All stations of BJRI.
105	Application of selected plant materials against jute yellow mite	To identify the effective plant materials against yellow mite	Jute village Manikganj and Chandina
106	Performance of alternative cropping pattern Boro-Jute-T.Aman against existing farmers pattern Boro-Fallow-T.Aman in medium high land	To find out a suitable cropping pattern for the farmers.	JAES, Jagir, Manikganj

Sl No.	Research Title	Objective(s)	Location
107	Performance of alternative cropping pattern Mungbean Jute- T.Aman against existing farmers pattern Fallow/Pulses-Fallow-T.Aman in medium high land at Patuakhali Region	To find out a suitable cropping pattern for the farmers.	Patuakhali reagion
108	Performance testing of cropping pattern Jute - Jute seed + Coriander/Lalshak - Onion + Lalshak against existing Farmers pattern Jute-T.Aman-Maize at Manikganj and Faridpur	To develop appropriate cropping systems involving jute seed crop for different AEZ.	Manikganj, Faridpur
109	Development of Year Round Vegetable Production Model with Jute Seed in Homestead	To produce jute seed for ensuring national demand	Central Station, Dhaka
110	Study the up date cost and return of jute seed production at farm level in different areas of Bangladesh	To estimate the cost and return for late jute seed crop production	Sirajganj, Rajshahi, Kushtia, Jessore and Dhaka.
111	Up date study on cost and return of jute fibre crops production at farm level in different areas of Bangladesh	To estimate the area, cost and socio-economic constraints for jute production	Faridpur, Rajbari, Naogaon, Kushtia, Jessore, Gopalganj, Chuadanga, Dinajpur, Lalmanirhat, Kurigram, Kishoreganj & Manikganj.
112	Up date study on cost and return of Kenaf fibre crops production at farm level in different areas of Bangladesh	To estimate the area, cost & socio-economic constraints for kenaf and mesta production	Rajbari Barishal Laxmipur, Sirajganj Jamalpur Comilla and Madaripur
113	Field days, farmers training and seminar/workshop on improved technologies for JAF crops	To motivate and popularizes the technologies to the farmers through training, demonstration and field days.	All Jute village and blocks
114	Technology transfer through BJRI Jute Village and Jute Block	To identify farmers' constraints for adoption of technologies and generate feed back for further development.	All Jute village and blocks

Sl No.	Research Title	Objective(s)	Location
TECHNOLOGICAL RESEARCH ON JUTE AND ALLIED FIBRE CROPS			
115	Studies of different fastness properties of all kinds of jute products of BJRI to standardize them	To find out different properties of dyed/printed jute products for standardize.	Textile Physics Division, Chemistry, Pilot Division,
116	Design and development in the production process of jute cotton blended yarn in short staple spinning technology and adaptive modeling.	To establish a suitable system among raw material properties, process parameters and product properties.	BJRI, JTPDC and BUTEX,IPE & BUET.
117	Study the Properties of Jute Fibre Reinforced Technical Textiles.	Divercified product of jute composite material which make the structures heavy and expensiv.	Physics Division, BJRI &BUTEX.
118	Characterization of jute fibre of different ages for suitable blending in short staple spinning system.	To diversify the use of jute and develop new products with raw and modified jute fibres.	Technological wing of, JTPDC and BUTEX.
119	Comparison between the mechanical properties of Jute fibre reinforced Polypropylene composites using woven and nonwoven jute fabrics	To improve the mechanical properties of jute based composite materials by utilizing both woven and nonwoven structures which have not been used extensively.	Physics Division, BJRI and BUET, BUTEX, SEU, AEC, Savar,
120	Standardization of jute varieties both tossa and white released by BJRI at different time on the basis of objective assessment	To complete quality chart for the released varieties. It will be very helpful to the users and producers.	BJRI Farms
121	Studies on fibre strength of jute fibre of different reed length and weight	To find out the variation of fibre strength with thier variation.	Manikgonj, Textile Division BJRI
122	Studies on the electrical properties of low temperature plasma treatment	To investigate the effects of LTP treatment of jute fibre by glow discharge technique.	BUET,AEC and BCSIR
123	Preparation of environment friendly Jute based hybrid green composite Rickshaw.	To produce eco-friendly jute rickshaw.	BJRI & BUET
124	Effect of nano-clay and carbon tube on the jute polyester nano thermo set composite	To value added product which is made of jute composites (fire retardant goods)	BJRI, BUET and AEC

Sl No.	Research Title	Objective(s)	Location
125	Preparation and characterization of water repellent cellulose acetate, bio-composite with jute materials	To develope new area of jute products for improving diversified uses of eco -friendly jute based goods	BJRI.
126	Chemical and physical studies on different samples of jute and allied fibres/sticks	To increase diversified end uses of jute goods.	BJRI.
127	Preparation of different types of Acoustics panels by using jute fibre.	To study their physico-mechanical and chemical properties to ascertain specific uses.	BJRI.
128	Radiation induced improvement of jute materials	To improve the quality of jute materials and ensure new diversified uses of jute goods.	BJRI, AEC, DU, Yamaguchi, Japan
129	Improvement of flameproof process of jute and jute fabrics for diversified uses.	To develope suitable process for imparting desirable flameproof finishes to jute fabrics / yarns	BJRI.
130	To investigate jute and allied fibrous materials as industrial raw materials to prepare chemical derivatives, pulps and other non-woven products.	To suitable method for making pulp from jute for divercified use of jute in the world market.	BJRI and BCSIR,
131	Studies on the physico-chemical properties of various chemically modified jute fibre and blends with other natural and synthetic fibre for making fashionable cloths for widely textile uses.	To study the physico-chemical properties of modified jute fibre and blends with natural and synthetic fibres for making the fashionable cloths for widely use in textile sectors.	BJRI
132	Investigation of the physico-chemical properties of jute fibre (O-9897) of optimum growth age of ascertain for spinning with lower amount of JBO treatment.	To produce jute yarns avoiding JBO treatment as much as possible.	BJRI
133	Studies on the effect of different detergents and other washing agents on wash ability of jute blended fabrics and products.	To study the effect of detergents on various jute fabrics, blankets, carpets and blended jute products.	BJRI
134	To study the development of basic analysis in dyeing process for jute samples using direct dye.	To improve the fastness and others properties of this dye.	BJRI

Sl No.	Research Title	Objective(s)	Location
135	Development of integrated chemical wet processes for the improvement of printing quality and dyeability of jute fabrics.	To carry out for the improvement of dyeability of jute fabrics.	BJRI
136	Textile printing for decorative design on jute and jute blended products by developing thickeners using indigenous and natural starchy materials (maize starch).	To use as mixed and single thickeners in the field of textile printing.	BJRI
137	Isolation and characterization of lignocellulolytic microorganism (mesophilic and thermophilic fungi/bacteria) from different jute mills of Bangladesh and studies their possible application on jute processing systems.	To isolate lignocellulolytic organisms and evaluate their enzymatic activities to improve the quality of jute and jute based materials.	BJRI
138	Production and optimization of cellulase and xylanase by using *Trichodermasp*. in shake culture fermentation.	To produce cellulases and xylanases from *Trichoderma* spp. in shake culture.	BJRI
139	Production of enzyme from jute retting fungus and their application during retting process.	To improve the retting technology, this study aim to reduce the requirement of large volume of water along with time.	BJRI
140	Study of starch phosphorylase enzymes extracted from non-traditional plant sources.	To determine the effect of starch phosphorylase enzymes for jute yarn desizing.	BJRI
141	Rheological study of starches (corn, cassava and potato) by applying starch phosphorylase extracted from Potato and other plant root materials.	To determine the effect of starch phosphorylase enzymes for jute yarn desizing.	BJRI
142	Study of starch phosphorylase application on starch during processing of jute fabrics	To determine the effect of starch phosphorylase enzymes for jute yarn desizing	BJRI
143	Application of cellulases and xylanases for bio-polishing, bio-finishing and stone washing of jute and jute blended products.	To remove the undesirable properties of the diversified jute products by the application of enzymes.	BJRI
144	Quality assessment of jute fibre separated from developed mechanical method.	To find out try a mechanical method for separating the jute fibre.	BJRI

Sl No.	Research Title	Objective(s)	Location
145	Preservation of jute leaves by using improved traditional techniques	To study the effect of traditional preservation methods on nutrient contents of jute leaves.	BJRI
146	Diversified product from jute leaves.	To utilized jute leaves and additional source of income to the farmers.	BJRI
147	Development of technology for production and preservation of jute leaf herbal tea.	To make a value added product from jute leaves.	BJRI
148	Application of bacteria for decolorization and degradation of reactive dyes	To study of some microorganisms that are able to degrade and absorb dyes from wastewater and over coming the disadvantages of this dye.	BJRI
149	Determination of biodegradability of jute-PLA (poly lactic acid) fibre composite	To determine the period for complete biodegradation of the jute-PLA composite.	BJRI
150	Conversion of the jute spool winding machine from wooden spool to paper spool system.	To maintain proper shape and increase longevity of this machine.	BJRI
151	A study on smell free and economy jute processing oil (Verdure and Rafi) for jute spinning industry.	To improve the uniformity of product, obtain certain physical characteristics in the yarn or fabrics along with advantages of jute process for cost savings, smell free product produce and yarn makes soft feeling	BJRI
152	Effect of conditioning on processing and properties of jute fibre and yarn.	To find out different drawing machine as conditioning period of jute fibre and yarn as per standard methods.	BJRI
153	Study on the physical properties of jute-cotton union fabric.	To find out the new diversified jute products.	BJRI
154	Visit the different Jute mills and organizations for sharing scientific processing techniques and methods for jute and jute goods.	To visit the different Jute mills and organizations to share scientific processing techniques and methods.	Jute mills and Universities in the country and abroad.
155	Technical services to different entrepreneur and training to academic organizations to promote jute and jute goods.	To help the technical assistant to different organization/institution	BJRI
156	Study on the pre-treatment process optimization of jute fabric for green Environment	To potential application in cleaner production of jute cellulose materials.	BJRI

Sl No.	Research Title	Objective(s)	Location
157	Study on the effect of salt concentration during jute dyeing on reactive dye	To overcome the salt concentration for the dyeing of jute fabric	BJRI and BUTEX
158	Study on the effect of temperature on the properties of dyed fabric in stenter machine.	To control shrinkage spirality, increase depth of shade and remove extra colour.	BJRI and BUTEX
159	Manufacturing of knitted jute shopping bags of different sizes and fancy items of different designs for improving market potentiality	To improve market potentiality.	BJRI.
160	Manufacturing of different traditional jute products assuring qualities with cost minimization for market potentiality.	To take proper advantages in the market	BJRI.
161	Comparative study between chemically modified jute fiber and optical brightener treated jute fiber.	To determine whitening agent which is the best for jute fabrics?	BJRI and BUTEX
162	Study on the calorific properties of fuel cake produced from various types of jute wastes.	To reduce environment pollution from burning the wastes	BCSIR
163	Production of outer wears with Jute woolenised yarn and study of its market feasibility	To study of its market feasibility.	BJRI.
164	Provide technical services in the industries to promote marketing of jute goods at home and aboard.	To render technical and processing services to the manufactures and exports of jute goods on payment of usual fees as provided under bilateral agreement.	BJRI

BANGLADESH INSTITUTE OF NUCLEAR AGRICULTURE

BANGLADESH INSITUTE OF NUCLEAR AGRICULTURE

PLANT BREEDING DIVISION

Sl No.	Research Title	Objective(s)	Location
Varietal Improvement of Rice by Induced Mutation and Advanced Breeding Techniques			
1	On-farm and on-station trials with Binadhan-14 and a high yielding mutant line of T.aman rice	To assess yield potentials and earliness in T. aman season	Mymensingh and Rangpur
2	On-station and on-farm trial with M_8 mutant lines	To assess performance over locations	Comilla, Rangpur and Magura
3	On-station and on-farm trial with F_9 lines with higher iron content and yield	To assess performance over locations	Mymensingh, Comilla, Rangpur and Magura
4	Advanced yield trial with M_4 and M_5 population of carbon ion irradiated NERICA-10	To select mutants with higher yield under rainfed condition	Chapai nawabgonj
5	Observation trial with M_4 population derived from deep water rice cv. Luxmi digha under deep water condition	To select deep water rice with higher yield	Barisal
6	Screening of carbon ion irradiated M_2 population of Swarna and NERICA-10 rice in T.Aman season	To select disease tolerant high yielding plant/ progeny from Swarna and high yielding aromatic mutants from NERICA-10	
7	Screening of carbon ion irradiated M_2 population of Swarna and NERICA-10 rice in T.Aman season	To bring homozygosity in segregating mutant population for shortening the breeding cycle	Mymensingh
8	Double haploid production using irradiated pollen	To bring homozygosity in segregating mutant population for shortening the breeding cycle	Mymensingh
9	Field evaluation of a short duration high yielding mutant line	To assess yield potential and earliness over locations	Rangpur, Magura, Barisal, Comilla, Jamalpur and Mymensingh,
10	On-station and on-farm trial with F_{10} mutant lines with fine grain and higher iron content	To assess performance over locations	Rangpur, Magura, Barisal,
11	Zonal yield trial with M_5 and M_6 mutants of	To select mutants with higher yield	Rangpur, Ishurdi,

Sl No.	Research Title	Objective(s)	Location
	NERICA-10 rice under rainfed condition		Magura and Chapai Nawabganj
12	Screening and evaluation of M_3 population of carbon ion irradiated Kasalath	To select mutants with higher yield potentials	Mymensingh
13	Germplasm maintenance	To maintain the seeds (genetic resources) of different cultivars/ mutants for future use	Mymensingh
Genetic Enhancement of Salinity and Drought Tolerance in Rice through Nuclear and Advanced Breeding Techniques			
14	Evaluation of rice germplasm/land races under salinity/drought stresses.	To assess level of tolerances under high salinity and drought stresses	Mymensingh,
15	Growing of M_1 populations of salt/drought tolerant land races	To develop salinity/drought tolerant rice mutants	Mymensingh
16	Crossing of salinity/drought tolerant landraces with elite mutants/ cultivars for producing F_1 seeds	To transfer salinity/drought tolerant characters to elite cultivars	Mymensingh
Genomic Approaches and Genetic Resources for Improving Rice Yield and Grain quality			
17	Evaluation of rice germplasm /land races for yield potentials and premium grain quality.	To assess yield potentials, aroma and photoperiod sensitivity	Mymensingh
18	Growing of M_1 populations of some aromatic land races	To select desired plant types	Mymensingh
Varietal Improvement of Rapeseed-Mustard through Induced Mutations and other Advanced Breeding Techniques			
19	On-station and on-farm yield trials with advanced M_9 *B. napus* mutants	To assess overall performance of the mutants for earliness, seed yield and reaction to *Alternaria* blight disease	Mymensingh, Ishurdi, Magura, Rangpur, Satkhira and Chapainobabganj and Manikgonj,
20	On-station yield trial with advanced M_8*B. napus* mutants	To assess overall performance of the mutants for earliness, seed yield and reaction to *Alternaria* blight disease	Mymensingh, Ishurdi, Magura, Rangpur and Satkhira
21	On-station and on-farm yield trials with F_9 rapeseed lines	To assess overall performance of the lines for earliness, seed yield and reaction to *Alternaria* blight disease	Mymensingh, Ishurdi, Magura, Rangpur and

Sl No.	Research Title	Objective(s)	Location
			Chapai Nawabganj. Manikgonj, Tangail,
22	Zonal yield trial with advanced M_8 mustard (*B. juncea*) mutants	To assess overall performance of the mutants for earliness, seed yield and reaction to *Alternaria* blight disease	Rangpur, Chapai Nawabganj, Ishurdi, Magura
23	Screening of rapeseed-mustard varieties/ mutants/lines for salinity tolerance	To assess level of tolerance under salt stress	Mymensingh,
24	Growing of F_6 lines from cross between Binasarisha-4 and Tori-7	To select stable and desirable lines	Mymensingh, Rangpur
25	Growing of M_3 population (from mother varieties Tori-7, Binasarisha-4 and MRH)	To select early maturing mutants	Mymensingh
26	Growing of M_1 generation	To create genetic variability	Mymensingh
27	Growing of F_1 generation from crossing of Binasarisha-4 with Tori-7, BARI Sarisha-14 and BARI Sarisha-15	To develop early maturing and high yielding rapeseed lines	Mymensingh
28	Crossing Binasarisha-4 with Tori-7, BARI Sarisha-14 &15	To develop early maturing and high yielding rapeseed lines	Mymensingh
29	Maintenance of germplasm	To maintain breeding materials	Mymensingh, Magura
Varietal Improvement of Groundnut Through Mutation and Advanced Breeding Techniques			
30	On-station and on-farm trials with M_9 mutants and F_{10} lines of groundnut	To assess performance of the mutants and lines	Ishurdi, Rangpur, Noakhali, Chapai Nawabganj, Jhenaidah,
31	Evaluation and selection of M_3 population of groundnut	To select early maturing mutants with higher yield	Debigonj and Kishoregonj
32	Maintenance of groundnut mutant germplasm	To maintain the mutant germplasm	Mymensingh
Varietal Improvement of Sesame Through Induced Mutation and Advanced Breeding Techniques			
33	On-farm and on-station yield trials with promising M_9 and M_8 mutants	To select mutants for improved yield components, higher seed yield and earliness	BINA, Ishurdi, Magura, Chapai

Sl No.	Research Title	Objective(s)	Location
			Nawabganj, Satkhira and Khagrasori
34	Screening of sesame mutants/lines for salinity tolerance	To assess level of tolerance under salt stress	Mymensingh
35	Growing of M_3 population	To select early maturing and stable mutants with higher yield	Mymensingh
36	Growing of M_1 generation	To create variability for selection of desirable mutants	Mymensingh
37	Crossing within Binatil-1, 2 & 3 and BARI Til-4	To develop early maturing and high yielding sesame lines	Mymensingh
38	Maintenance of germplasm	To maintain breeding materials for future uses	Mymensingh
Varietal Improvement of Soybean Through Induced Mutation			
39	On-station and on-farm yield trials with M_8 soybean mutants	To select early maturing and high yielding mutants as varieties	Mymensingh, Ishudrdi, Magura and Chapai Nawabganj, Magura, Satkhira, Comilla and Noakhali, Chandpur, Laxmipur
40	Screening of soybean varieties/mutants/lines for salinity tolerance	To assess level of tolerance under salt stress	Mymensingh
41	Growing of M_2 population	To select early maturing mutants	Mymensingh
42	Maintenance of local and exotic germplasm	To maintain the germplasm for future utilization	Mymensingh, Magura
43	Growing of M_1 generation of Soybean	To create variability for selection of desirable mutants	Mymensingh
Varietal Improvement of Winter and Summer Mungbean using Mutation Breeding Techniques			
44	On-farm trial of two promisingmutants of mungbean	To assess overall performance of the mutants in respect of earliness, higher seed yield and disease tolerant at both on-station and farmers field	Magura, Rajshahi, Ishurdi and Barisal
45	Zonal yield trial of some promising summer mungbean mutants	To select desirable mutants and assess overall performance of the mutants for earliness, seed yield and disease reaction	Magura, Rajshahi, Ishurdi and Barisal
46	Growing of M_4 generation of mungbean	To create variability for selection of desirable mutants	Ishurdi, Mymensingh
47	Growing of M_2 generation of mungbean	To create variability for selection of desirable mutants	Ishurdi, Mymensingh
48	Maintenance of germplasm lines of mungbean	To maintain breeding materials	Mymensingh

Sl No.	Research Title	Objective(s)	Location
Varietal Improvement of Chickpea for Problem Areas Through Induced Mutations			
49	Zonal yield trial of some promising mutants of chickpea	To select high yielding variety(s) of chickpea with large seed size and early maturity, disease and insect pest reaction	Godagari, Ishurdi and Magura
50	Advanced yield trial some promising mutants of Chickpea	To select high yielding variety(s) of chickpea with large seed size and early maturity	Godagariand Magura
51	Preliminary yield trial of Kabuli type chickpea mutants	To assess overall performance of the mutant for earliness, seed yield and disease reaction	Godagari and Magura
Varietal Improvement of Lentil Through Induced Mutation and Advanced Breeding Techniques			
52	Farmers' field trial with two M_8 mutant lines of lentil	To assess the yield potential of the mutants on farmer's field condition	Magura, Jessore, Natore and Rajshahi
53	On-station trial with five promising M_7 mutant lines of lentil	To assess the yield potential of the mutants	Magura, Ishurdi and Rajshahi
54	Zonal yield trial with six promising M_6 mutant lines of lentil	To assess the yield potential of the lines	Magura, Ishurdi and Rajshahi
55	Advanced yield trial with six M_5 mutant lines	To assess the yield potential of the lines	Magura and Ishurdi
56	Preliminary yield trial of some promising mutants of lentil	To assess overall performance of the lines for earliness, seed yield and reaction to disease.	Ishurdi and Magura
57	Screening of M_3 and M_4 generations	To select erect, early maturing with higher pod bearing plants	Ishurdi and Magura
58	Evaluation of ICARDA lentil lines	To select yearly maturing plants with more number of pods	Mymensingh, Ishurdi
59	Maintenance of germplasm	To maintain the lentil germplasm	Ishurdi
60	On-farm and On-station yield trial of two lines of lentil	To assess the yield potential of the lines on farmer's field condition	Ishurdi, Magura, Jhenaidah, , Kushtia, Faridpur, Jessore and Natore
61	Advanced yield trial of some promising lines of lentil	To assess the yield potential of the accessions	Ishurdi and Magura
Varietal Improvement of Onion using Induced Mutation			
62	On-farm and on-station trials with M7 mutant lines for bulb yield potentials in summer	To assess bulb yield potentials of the mutants in summer season	Magura, Rangpur, Ishurdi, Chapai Nawabgonj

Sl No.	Research Title	Objective(s)	Location
63	On-farm and on-station trials with M7 mutant lines for seed yield potentials in winter	To assess seed yield potentials of the mutants in winter season	Meherpur, Faridpur and Manikgonj, Sariatpur and Faridpur
64	On-farm and on-station trial with M7 mutant lines for bulb yield potentials in late winter	To assess bulb yield potentials of the mutants in late winter	Magura, Rangpur, Ishurdi, Chapai Nawabganj Faridpur, Madaripur, Manikgonj and Meherpur
65	Production of M8 pure seed	To multiply seed	Ishurdi, Rangpur and Chapai Nawabganj
Development of Salt Tolerant Wheat			
66	Field evaluation with a salt tolerant wheat mutants	To assess yield potentials in saline field conditions for release	Ishurdi, Patuakhali, Noakhali, Satkhira, Khulna and Pirojpur
67	Growing of M_1 generation of wheat	To create variability for short duration , salinity, and high temperature tolerance tolerance and higher yield	Mymensingh
68	Double haploid production using irradiated pollen	To bring homozygosity in segregating mutant population for shortening the breeding cycle	Mymensingh

CROP PHYSIOLOGY DIVISION

Physiological Aspect of Crop Productivity			
69	Effect of low temperature on photosynthesis, grain growth and yield of five *Aman* rice varieties	To assess the effect of low temperature at different growth stages on yield and yield attributes	Mymensingh
70	Effect of water stress on photosynthesis, biochemical activity, leaf water potential and yield of rice genotypes	To assess the effects of water stress on photosynthesis, biochemical and leaf water attributes and yield of aromatic rice genotypes	Mymensingh
71	Effect of salinity on physiological attributes and yield of six local rice genotypes	To evaluate the effect of salinity on physiological attributes and yield of local rice genotypes	Mymensingh
72	Evaluation of five BINA *Aman* rice varieties based on morphological characters	To observe growth and yield attributes of rice varieties	Magura and Ishurdi

Sl No.	Research Title	Objective(s)	Location
73	Variation in morphophysiological characters of four lentil mutants/varieties	To observe growth and yield attributes of lentil mutants/varieties	Magura and Ishurdi
74	Measures to reduce grain sterility in rice based on physiological criteria	To assess grain sterility in relation to dry mass production and distribution in rice.	Mymensingh
75	Physiology of tillering ontogeny and assimilate partitioning control in *Boro* rice	To assess the control mechanism involved in assimilate partitioning competition among different classes of tillers in rice	Mymensingh

SOIL SCIENCE DIVISION

Studies on Land Degradation and Rejuvenation Using Tracer Technique			
76	Evaluation of physico-chemical characters of soils in part of Brahmaputra Floodplains and Madhupur Tract areas	• To collect baseline information, existing soil database, major crops/cropping patterns, fertilization, hydrologic status, environment related factors, etc. of the study areas. • To monitor the changes in selected physico-chemical characters of soils during the period between 1960s and 2014 • To analyze collected information for finding out whether the land undergoneany degradation or not	AEZs 9 and 28
77	Field trials with major crops/cropping patterns in selected AEZs for maintaining/sustaining soil fertility and crop productivity	• To collect existing information on land, soil, major crops/cropping patterns, fertilization, etc. in selected AEZs • To establish nutrient trapping field trials with major crops/cropping patterns • To evaluate the soil fertility indicators in terms of biological productivity	AEZs 3 and 9
Assessment of Arsenic Contamination in Soils, Crops and Water in Selected Aezs in Bangladesh			
78	Assessment of arsenic (As) contamination in soil samples from AEZs 9 and 11	To determine the As level in soil samples from AEZs 9 and 11	AEZs 9 and 11
79	Special variability of arsenic concentration in water, soil and plants	• To determine the As level in soil, water and plant samples in selected area • To examine the magnitude of As variation in irrigation channel water, paddy field soils, and As accumulation in rice grain within a Deep Tube Well (DTW) command area and • To identify the linkage of As with Fe, Mn and P	AEZs 1, 3, 9 and 28
Characterization of the Soils of BINA Farm and Substations			
80	Detailed survey, soil characterization and mapping of BINA farm and 7 new substations farms	• To survey & mapping and collection of soil samples from the HQ and Substation Farms and the samples to be analyzed for physico-chemical properties • To evaluate the soils in relation to crop production potential	Jamalpur and Nalitabari

Sl No.	Research Title	Objective(s)	Location
Physio-Chemical Characterization of Different Soils Using Tracer Technique			
81	Evaluation of soil test methods for phosphorus and its critical limit for Binadhan-7 in some soils using ^{32}P as tracer	• To determine the best procedure for extracting soil P that provides the highest correlation with plant dry matter production • To determine critical level of soil P for rice	BINA glass house
Integrated Nutrient Management and Soil Fertility for Increased Crop Production			
82	Monitoring, management and nutrient dynamics of saline soil for increased crop production	• To monitor the salinity of soil throughout the year • To see the suitability of crops grown under different salinity condition • To see any improvement in soils due to use of organic manure and crop residues with chemical fertilizers	Satkhira
83	Contribution of rice straw to potassium supply and its impact on soil fertility in saline area	• To evaluate the contribution of rice straw to potassium supply • To manage the adverse effect of salinity for crop growth • To maintain sustainable production of rice in saline area	Satkhira
84	Improved management practices for submergence tolerant variety (Binadhan-11 & 12) in flood prone area	• To manage the adverse effect of submergence/flesh flood for crop growth • To maintain sustainable production of rice in submergence area	Nalitabari, Sherpur
Isotopic Studies of Organic carbon			
85	Stable carbon isotope depth profiles and soil organic carbon dynamics	• To determine the amount of carbon content in different soil depth • To determine depth profile of organic carbon content in soil	Mymensingh
86	Organic carbon and stable ^{13}C isotope in conservation agriculture and conventional systems	To quantify soil organic carbon (SOC) and soil C derived from C_3 (rice) and C_4 (maize) using $\delta^{13}C$ stable isotope	Mymensingh
Assessment of Industrial Pollution on Agricultural Land and its Impact on Crop Production			
87	Assessment of heavy metal concentrations in agricultural land from industrial waste polluted area	• To identify amount of heavy metal concentration in agricultural soil • To determine amount of heavy metal uptake by crop • To determine heavy metal toxicity in soil	Valuka, Mymensingh, Sreepur, Konabary, and Kaliakoir, Gazipur
88	Assessing the amount of micro & heavy metal content in rice and vegetable grown in industrial polluted areas of Gazipur & Mymensingh	• To identify amount of heavy metal concentration in agricultural soil • To determine amount of heavy metal uptake by vegetable • To determine heavy metal toxicity in vegetable	Gazipur & Valuka, Mymensingh

Sl No.	Research Title	Objective(s)	Location
Organic Agriculture Technology for Improving Soil Fertility			
89	Maintenance and improvement of soil fertility through organic farming	• To identify the suitability of different source of organic materials • To determine the soil fertility due to use of organic manure	Mymensingh
90	Enhancement of cultivated soil carbon content through organic farming	• To increase in overall SOC concentration • To observe SOC accumulation over time (Carbon sequestration rate)	Mymensingh
Fertilizer Recommendation for Elite Mutants/Lines Developed by BINA			
91	Fertilization recommendation for different mutants/lines developed by BINA	To evaluate the fertilizer use efficiency and to recommend different fertilizers for different mutants/lines	BINA substation farms
Nitrogen Management Through Carbon Sequestration in Soils			
92	Effect of different organic residues on nitrogen transformation in soil (incubation study)	To determine mineral nitrogen releasing pattern	Mymensingh
93	Effect of cover crops, organic – inorganic fertilizers and land management practices on crops and soil	• To determine mineral nitrogen releasing pattern • To determine respiration capacity in soil • To estimate nitrogen and organic carbon status in soil	Mymensingh
94	Influence of organic and inorganic sources of nitrogen on nutrient (N) transformation and uptake under rice mungbean rice cropping system using ^{15}N tracer techniques	• To determine respiration capacity of soil • To estimate nitrogen and organic carbon status in soil • To determine physico-chemical properties of soil • To determine yield and nutrient uptake capacities of rice and mungbean crops	Mymensingh
Supporting Climate Proofing Rice Production System (CRRPS) Based on Nuclear Application in Bangladesh			
95	Isotope aided studies on Irrigation, Soil Amendment and N on growth and Yield of rice in saline area of Bangladesh	To investigate the isotope aided studies on Irrigation, Soil Amendment and N on growth and Yield of rice in saline area of Bangladesh	Noakhali and Satkhira
96	Response of some salt tolerant rice varieties to different irrigation water sources in saline areas of Bangladesh	• To investigate the performance of different salt tolerant rice varieties in saline area. • To know the interaction effect of salt tolerant rice with different source of water	Satkhira

Sl No.	Research Title	Objective(s)	Location
97	Response of some sub-mergence tolerant BINA rice varieties to different water sub-mergence prone areas of Bangladesh	• To investigate the performance of different sub-mergence tolerant rice varieties in water sub-mergence prone area • To know the effect of different sub-mergence duration on the growth and yield of rice	Noakhali, Nalitabari, Dhobaura
Lands Cape Salinity and Water Management in Coastal region of Bangladesh for improving Agricultural productivity			
98	Monitoring the Nitrogen and Capillary GW movement in rice field under different salinity levels.	• To monitor the N release pattern in rice field • To assess the N uptake by rice under different salinity levels • To observe the capillary movement of saline water from ground water source.	Satkhira and Noakhali
99	^{15}N aided studies on different nitrogen level and sloping bed transplanting approach on rice production in saline area of Bangladesh	To investigate the ^{15}N aided studies on different nitrogen level and sloping bed transplanting approach on rice production in saline area of Bangladesh	Noakhali and Bashkhali
100	Response of salt tolerant rice variety Binadhan-10 to different irrigation and rice variety at various saline areas of Bangladesh	• To investigate the performance of different salt tolerant rice varieties in saline area. • To know the effect of different irrigation water sources on the growth and yield of rice	Satkhira
Nuclear studies on Management of River polluted Soil for Increasing Crop Production			
101	Effect of different soil conditioners with zero nitrogen on the growth, yield, and heavy metal uptake in rice.	To investigate the effect of different soil conditioners with zero nitrogen on the growth, yield, and heavy metal uptake in rice.	Narayanganj
Studies on Micronutrients in Soils and Crops			
102	Effect of micronutrient (Zn, B and Mo) on yield and nutrient uptake by rice and mungbean.	To assess the effect on yield and nutrient uptake by crops.	Magura and Rangpur
103	Residual effects of Zn and B fertilization on Wheat under Wheat - Mungbean - T.aman cropping pattern in calcareous soil	To assess the requirement and residual effect of Zn and B fertilization on Wheat in calcareous soil	Ishurdi and Magura
104	Biofortification of Zn and Fe in rice, wheat and lentil by Zn and Fe fertilization and variety selection	To improve yield and biofortification of Zn & Fe in rice, wheat and lentil by Zn and Fe application and variety selection	Muktagacha, Mymensingh, Ishurdi, Pabna

Sl No.	Research Title	Objective(s)	Location
105	Evaluation of the methods of fertilization (seed, soil & foliar) for improvement of yield and Zn and Fe enrichment of grains	Evaluation of methods of fertilization (seed, soil and foliar) to improve yield and Zn & Fe enrichment in grains.	Muktagacha, Mymensingh, Ishurdi, Pabna
Fallout Radionuclide (FRN) studies			
106	Identification and establish of reference site for reference inventories.	To determine the reference inventories of ^{137}Cs, ^{210}Pb and Be	Chittagong Hill Tracts, Chittagong and Cox's Bazar, Sylhet, Comilla and Netrokona
107	Development of national database of FRN in soil and nutrient loss/gain in different time scale.	To develop national soil erosion-deposition database in different places in Bangladesh	Chittagong Hill Tracts, Chittagong and Cox's Bazar, Sylhet, Comilla and Netrokona
108	Measurement of soil and nutrient loss due to tillage practices by FRN techniques.	To determine the loss of soil and nutrients due to soil erosion on cultivated slope	Khakrachari.
109	Determination of sediment source in a small catchment by Compound Specific Stable Isotope (CSSI) technique	To determine source of sediment in a small catchment	Sutiakhali, Mymensingh
Agricultural Land Management for Improving Soil Fertility and Irrigation Efficiency			
110	Effect of integrated nutrient management on soil fertility and productivity of Vegetable-T. Aus rice-T. Aman rice cropping pattern	To determine the fertilizer and moisture level for crops	Sutiakhali, Mymensingh
111	Effect of integrated nutrient and water management on the productivity and water use efficiency of Boro-Fallow-T. Aman cropping pattern	To determine the nutrient management and water use efficiency of crops	Sutiakhali, Mymensingh

Sl No.	Research Title	Objective(s)	Location
Evaluation the Influence of Rhizobial Strains on Growth and Yield of Lentils at Different Regions			
112	Effect of different Rhizobium strains on growth and yield of lentil at sub-station (Ishurdhi)	• To investigate the effect of Rhizobium sp on growth and yield of lentil • To see the nodulation efficiency at field condition • To see nitrogen fixation efficiency	Ishurdi
Biological Nitrogen Fixation Studies in Soils and Legume Crops Using ^{15}N Isotopic Technique			
113	Isolation and characterization of *Rhizobium* and *Bradyrhizobium* strains from garden pea, france bean and country bean and their effectiveness study on host crops	• Isolation of effective N-fixing rhizobia strains from root nodules of different pulse, frence bean and green manuring crops • Screening of most effective rhizobia strains for biofertilizer production	Mymensingh;
114	Determination of BNF potentials of different legume cultivars (Mungbean and groundnut) using ^{15}N tracer technique	To determine the nitrogen fixing ability of legume crops using ^{15}N technique	Mymensingh and Ishurdi
Development of PGPR Biofertilizer for Rice, Wheat and Vegetable Production			
115	Isolation of growth promoting rhizobacteria (PGPR) and their characterization	To isolate highly efficient nitrogen fixing and growth hormone producing bacteria strains from soils of different AEZs	Mymensingh
116	Effect of PGPR biofertilizer on growth and yield of rice	• To see the effect of PGPR's on growth and yield of rice in pot and field conditions • To see nitrogen fixation capacity of PGPR isolates in different agro-ecological regions of Bangladesh	Mymensingh Ishurdi, Magura, Comilla and Barisal
117	Survival of PGPR strains in different temperature conditions	To determine the shelf life of PGPR biofertilizer in different temperature conditions	Mymensingh
Microbiological Characterization of Soils of Different Aezs of Bangladesh			
118	Microbial population in soils of 7 new substations of BINA	Determination of nitrogen fixing, P solubilizing and growth hormone producing bacteria as well as total microbial population in soils	Mymensingh
Biofertilizer Production and Distribution			
119	Response of mungbean, soybean and peanut to different doses of N, P and S fertilizers with or without biofertilizer.	• Determination of the appropriate dose of N, P and S fertilizers for mungbean, soybean and peanut in presence of Rhizobial inoculation at different locations • Improvement of the yield and quality of soybean, mungbean and lentil through the use of rhizobial inoculation	Mymensingh, Ishurdi, Satkhira, Comilla and Noakhali.

Sl No.	Research Title	Objective(s)	Location
Biotechnological Studies on Nitrogen Fixation and Biological Management of Problem Soils of Bangladesh			
120	Isolation of salt and acid tolerant Brady/rhizobial strains to use as biofertilizer in the saline and acid soils of Bangladesh	• Isolation of Brady/rhizobial strains from various legumes grown in different acid/saline soils • Co-culture of the isolated strain with the existing isolated Bradyrhizobial strains to develop genetically changed potential strains • Determine the acetylene reduction activity and nitrogen fixation ability of the isolated strains • Investigate the residual effect of nodulation in the acid and saline soils	Mymensingh,
Studies on Mycorrhizal Fungi to Increase Nutrient Uptake and Crop Yield			
121	Effect of different levels of Phosphorus with and without mycorrhizal inoculated seedlings on growth and yield of rice.	• To investigate the effect of mycorrhizal inoculation on P uptake by rice • To examine the effect of mycorrhiza with different doses of P fertilizer to increase crop yield • To determine the suitable method for mycorrhizal inoculation • Evaluate the improvement of soil fertility by mycorrhizal inoculation	Mymensingh,
Enhancing Productivity of Locally-Underused Crops Through Dissemination of Mutated Germplasm and Evaluation of Soil, Nutrient and Water Management Practices			
122	Management of saline soil for mungbean cultivation	To find out the management of saline soil for mungbean cultivation	Satkhira
123	Management of saline soil for Chinabadam cultivation	To find out the management of saline soil for Chinabadam cultivation	Satkhira
Field trial of Organic Fertilizers			
124	Field trial of Organic Fertilizer “Eco-Guard” and “Bio Jaibo Sar” on crops.	To understand the response of organic fertilizers “Eco-Guard” and “Bio Jaibo Sar” on crop growth, yield and soil properties	Mymensingh
Development of Phosphatic Biofertilizer for Maximizing Crop Production Using ^{32}P Tracer Techniques			
125	Isolation of indigenous PSM from diversified agro-ecological zones.	To get a efficient PSM isolates for further evaluation	Ishurdi, Rangpur, Rajshahi, Mymensingh, Dinajpur and Khagrachari
126	Study of phosphate solubilization efficiency by PSM using 32P tracer technique	To select highly efficient phosphate solubilizing PSM	Mymensingh

Sl No.	Research Title	Objective(s)	Location
127	Effects of phosphatic biofertilizer on Mustard-Mungbean-T. aman rice cropping pattern at different AEZs	To investigate the effects of phosphatic biofertilizer on growth and yield of respective crops.	Ishurdi, Magura
128	Effects of phosphatic biofertilizer on Wheat – T. aus rice -T. aman rice cropping pattern at different AEZs	To demonstrate the performance of phosphatic biofertilizers on cereal based cropping pattern at different AEZs	Ishurdi, Rangpur
129	Formulation of liquid and solid based phosphatic biofertilizers and evaluation of their shelf life at various storage temperature	• To see the survival of PSB in different liquid and solid based carrier materials • To see the shelf life of PSB in different storage temperature over the incubation period	Mymensingh
Development of Phospho-Vermi Compost for Increased Crop Production Using Radio Active and Stable Isotope Techniques			
130	Multiplication of earthworms using different labelled (^{32}P, ^{15}N and ^{13}C isotopes) organic materials	To select a suitable organic materials in which earth worms can multiply profusely using radio active and stable isotope techniques	Mymensingh
131	Production of ^{15}N and ^{13}C labelled phospho-vermicompost and straight vermicompost using ^{15}N and ^{13}C labelled organic materials and earthworms	To produce phospho- vermicompost and straight vermicompost	Mymensingh
132	Effects of labelled (15N and 13C) phospho-vermicompost and straight vermicompost on Wheat-T. aman rice cropping pattern	• **To** quantify the contribution of 15N and 13C labelled vermicompost on growth and yield of rice and wheat at different AEZs • To quantify the contribution of labelled vermicompost **in soil** organic matter turn over	Mymensingh, Ishurdi, Magura
Studies on Phosphorus Acquisition by Kasalat Rice Cultivar			
133	Effects of various P levels on the growth and yield of kasalat rice under aerobic condition in glasshouse	• **To see the** growth and yield of kasalat rice under aerobic condition • To see the P uptake and P use efficiency by kasalat rice • To investigate the phosphatase activity in rhizosphere soils, roots and vegetative parts during the growth stages of rice • To investigate the phophorus availability in rhizosphere soil in different growth stages of kasalat rice	Mymensingh.
Delineation of Soil Micronutrients Status in Major AEZs of Bangladesh			
134	Response of Micronutrient Application on the Yield of Crops	Effects of Zn & B application on the yield of crops in Piedmont, Tista, Brahmaputra, Ganges and Meghna floodplain soils	Different AEZs of Bangladesh

Sl No.	Research Title	Objective(s)	Location

ENTOMOLOGY DIVISION

Genetic Control of Insect Pests with Special Reference to Sterile Insect Technique (SIT) and Radiation-Induced F1-Sterility			
135	Gamma Radiation Effect of Gamma radiation for Controlling fruit fly (*Bactrocera Cucurbitae*)	• To control the insect pests without using pesticides • To protect the environment from the pollution of pesticides	Mymensingh
136	Determination of Effective Radiation dose (s) for Controlling pulse Beetle (*C. Chinensis*)	• To control the insect pests without using pesticides • To protect the environment from the pollution of pesticides	Mymensingh
Screening of Rice Mutants for Resistant to Major Insect Pets			
137	Evaluation of Advanced mutants of rice for Mesistant to Brown plant Hopper under Artificial Infested Condition.	• To identify the sources of tolerance in rice plants against brown plant hopper • To find out the causes of tolerant/resistant	Mymensingh
138	Evaluation of Green Super rice (gsr) (binadhan-17) for Resistant to rice Hispa Under Artificial Infested Condition	• To identify the sources of tolerance in rice plants against rice hispa • To find out the causes of tolerant/resistant	Mymensingh
139	Evaluation Of Short Duration Line Bina E-3 Rice (Bina Dhan-16) For Tolerant / Resistant To Rice Hispa Under Artificial Infested Condition	• To identify the sources of tolerance in rice plants against rice hispa • To find out the causes of tolerant/resistant	Mymensingh
140	Evaluation of bina Developed rice Varieties for Resistant to Major insect Pests under field Condition	To identify the sources of tolerance in rice plants against stem borer and gall midge	Mymensingh
Screening of Pulse Crops for Resistant to Major Insect Pests			
141	Evaluation Of Summer Mungbean Mutants/ Strains For Tolerance To Major Insect Pest Under Field Condition	To identify the mungbean mutants for tolerance to pod borer, hairy caterpillar, jassid and leaf roller	Mymensingh, Ishurdi and Magura
142	Evaluation of Chickpea Mutants/ Varieties for Tolerance to Cutworm and pod borer Under Field Condition	To identify the chickpea mutants/varieties for tolerance to major insect pests, such as cutworm and pod borer	Jamalpur and, Gudagari, Rajshahi

Sl No.	Research Title	Objective(s)	Location
Screening of Oil seed Crops for Resistant to Major Insect Pests			
143	Evaluation of Mustard Mutants for Tolerance to Aphid and saw fly Under Field Condition	To identify the mustard mutants for tolerance to major insect pests such as aphid and saw fly.	Mymensingh, Magura and Rangpur
144	Evaluation of Different Groundnut Mutants for Tolerance to Jassid, leaf Roller and hairy Caterpillar under field condition.	To identify the groundnut mutants for tolerance to jassid leaf roller and hairy caterpillar.	Mymensingh
145	Evaluation Of Soybean Mutants For Tolerance To Leaf Roller, Hairy Caterpillar And Pod Borer Under Field Condition	• To identify the soybean mutants for tolerance to leaf roller, hairy caterpillar and pod borer. • To find out the causes of resistance	Mymensingh, Magura, Noakhal
146	Evaluation Of Advanced Sesame Mutants For Tolerance To Hairy Caterpillar, Aphid And Pod Borer Under Field Condition	• To identify the sesame mutants for tolerance to leaf roller, hairy caterpillar, pod borer and til hawk moth. • To find out the causes of resistance	Mymensingh, Magura.
Development of Botanical Pesticides			
147	Toxicant And Repellant Effects Of Four Plant Extract On Rice Weevil	• To find out the effectiveness of plant extracts for the control of stored pests	BINA, Mymensingh

PLANT PATHOLOGY DIVISION

Pest Management (Diseases)			
148	Evaluation of some promising mutants/advanced lines of rice for bacterial blight and sheath blight during aman season	To evaluate the level of resistance/ tolerance of advanced mutants and lines of rice against major diseases under inoculated condition	Mymensingh, Magura and Rangpur
149	Evaluation of some promising mutants/advanced lines of rice for bacterial blight and sheath blight during the boro season		Mymensingh and Magura
150	Evaluation of a salt tolerant mutant of wheat against leaf blotch disease	To evaluate the level of disease resistance/tolerance of an advanced mutant of wheat	Ishurdi and Noakhali
151	Field evaluation of advanced mutants of groundnut against collar rot and cercospora leaf spot	To identify the sources of resistance in induced mutants of groundnut against major diseases	Khagrachari, Noakhali and Jhinaidha

Sl No.	Research Title	Objective(s)	Location
152	Evaluation of some advanced mutants of sesame against root rot	To identify the sources of resistance in induced mutants of sesame against root rot	Mymensingh
153	Field evaluation of rapeseed mutants against alternaria blight	To identify the sources of resistance of rapeseed mutants against alternaria blight	Mymensingh
154	Field evaluation of some mutants of soybean against collar rot and soybean mosaic diseases	To identify the sources of resistance of soybean against collar rot and soybean mosaic diseases	Mymensingh
155	Evaluation of onion mutants against purple blotch disease	To identify the sources of resistance of onion mutants against purple blotch disease	Mymensingh and Ishurdi
156	Evaluation of tomato lines against fusarium wilt and late blight	To identify the sources of resistance of tomato mutants against fusarium wilt and late blight diseases	Mymensingh
157	Screening of promising mutants of mungbean against root rot, yellow mosaic and cercospora leaf spot	To identify the sources of resistance of mungbean against root rot, yellow mosaic and cercospora leaf spot diseases	Ishurdi, Magura and Potuakhali
158	Evaluation of lentil mutants against root rot and stemphylium blight	To identify the sources of resistance of lentil against root rot and stemphylium blight diseases	Ishurdi
159	Evaluation of chickpea mutants against root rot and botrytis gray mould	To identify the sources of resistance of chickpea mutants against root rot and botrytis gray mould diseases	Ishurdi

WATER MANAGEMENT DIVISION

Crop-Water Management (Irrigation management for pulse and Oil-seed crops)			
160	Irrigation scheduling of mustard lines/mutants using nuclear technique	To study the response of irrigation to mustard lines/mutants using nuclear technique.	Comilla, Magura
161	Response of sesame mutants to water-logging at different growth stages	• To study the response of sesame to water-logging • To determine the critical stages of sesame for water-logging	Mymensingh, Ishurdi
162	Response of sesame mutants to water-logging of different durations	• To study the response of sesame to water-logging • To determine the critical stages of sesame for water-logging	Mymensingh, Ishurdi
Crop-Water Management (Water Management for Cereals)			
163	Comparative assessment of water saving in Binadhan-14 (A Braus variety)	• To determine optimum water requirement of Binadhan-14 for optimum production • To find out the water savings by Binadhan-14 compared to conventional cultivars	Mymensingh, Comilla, Ishurdi, Rangpur
164	^{13}C isotopic discrimination of Wheat variety at varying water stress in lysimeter	To evaluate wheat plants for their tolerance to water stress at different growth stages	Mymensingh

Sl No.	Research Title	Objective(s)	Location
165	Studies on drought tolerance of NERICA mutants and Green Super Rice in Aus and Aus season	• To study the response of GSR and NERICA mutants to water-stress • To determine the critical stage(s) of GSR & NERICA mutants to water-stress • To develop appropriate water management strategy for GSR & NERICA mutants	Rajshahi, Chapai Nowabgonj
Ground Water Management			
166	Quantifying natural groundwater recharge using tracer technique	• To quantify natural groundwater recharge from rainfall • To determine rainfall-recharge relationship • To suggest sustainable use of groundwater based on actual recharge	Mymensingh
167	Estimation of groundwater recharge using Lysimeter	• To quantify natural groundwater recharge from rainfall • To determine rainfall-recharge relationship • To suggest sustainable use of groundwater based on actual recharge	Mymensingh
Ground Water Management (Water quality)			
168	Estimating temporal pattern of groundwater quality at different BINA sub-stations	• To determine water quality parameters throughout the year • To suggest sustainable use of water	BINA sub-stations area
Salinity Management			
169	Irrigation management for wheat under saline condition	• To find out the effect of brackish water on wheat yield • To find out the effect of brackish water on soil physical properties • To find out the tolerance limit of wheat due to brackish water irrigation and effect on yield	Satkhira
170	Studies on salt tolerant levels of HYV ricecultivars at different growth stages	• To evaluate the response of saline water irrigation at different growth stages of salt tolerant HYV rice cultivars • To determine critical stage(s), with respect to salinity • To screen out the most salt tolerant varieties	Mymensingh

AGRONOMY DIVISION

Crop Management and On Farm Research			
171	Determination of optimum time and row spacing for growth and yield of lentil lines	To find out proper time and optimum spacing for maximizing yield of lentil mutants	Ishurdi and Magura
172	Determination of optimum spacing on growth and yield of sesame mutants	To find out optimum spacing for maximizing yield of sesame mutants	Magura, Ishurdi and Khagrachari

Sl No.	Research Title	Objective(s)	Location
173	Study on different sowing/ transplanting methods for maximizing rice yield in Boro season	To find out proper sowing / transplanting methods for maximizing yield	Mymensingh and Sherpur
174	Assessing optimum transplanting date for maximizing yield of Binadhan-14	To find out optimum transplanting time for maximizing yield	Mymensingh and Magura
175	Study on relay cropping of wheat with T. aman rice in saline areas	To increase cropping intensity in saline areas	Satkhira
176	Effect of different herbicide available in the market for Boro and Aus rice	To recommend optimum dose for Boro and Aus rice either transplanted or direct seeded and to identify residues in soils and plants	Mymensingh
177	Effect of high temperature on the productivity of modern Boro rice varieties under pot culture	To observe the productivity status of BINA rice varieties at elevated temperature conditions	Mymensingh
178	Comparative studies on seed preservation methods by using nuclear technique	To develop proper seed maintenance technique to preserve seed in storage	Mymensingh

ADAPTIVE RESEARCH AND EXTENSION DIVISION

Technology Transfer and Impact Assessment		
179	Block Demonstrations with improved short duration T. Aman rice, Binadhan-7 in collaboration with DAE	To enhance the large scale cultivation of Binadhan-7 (**Location**: Pabna, Comilla, Khagrachori, Rangpur, Magura, Satkhira, Gopalganj, Sunamgonj, Moulovibazar, Chittagong, Mymensingh, Sirajgonj, Kushtia, Jhenaihdah, Chuadanga, Narail, Jessore, Faridpur, Madaripur, Kishorgonj, Jamalpur, Sherpur, Tangail, Gaibandha, Netrakona, Kurigram, Lalmonihat, Nilphamari, Dinajpur, Thakurgaon, Panchagor, Bogra, Natore, Rajshahi, Chapai nawabgonj, Nowgaon)
180	Block Demonstrations with high yielding salt tolerant Boro rice, Binadhan-8 and Binadhan-10 in collaboration with DAE	To enhance the large scale cultivation of Binadhan-8 and Binadhan-10 (**Location**:Khulna, Bagerhat, Satkhira, Barisal, Jhalakathi, Bhola, Pirojpur, Borguna, Potuakhali, Chittagon, Cox`s Bazar, Khagrachori, Comilla, Feni, Noakhali , Lakhmipur)
181	Block Demonstrations with high yielding late transplanted Boro rice, Binadhan-14 in collaboration with DAE	To enhance the large scale cultivation of Binadhan-14 (**Location**:Rangpur,Sirajgonj,Natore, Kushtia, Chuadanga, Narail, Faridpur, Madaripur, Gopalganj, Magura, Jessore, Netrakona,Satkhira, Kishorgonj, Jamalpur, Sherpur, Tangail, Kurigram, Dinajpur, Bogra, Jhenaidah)
182	Block Demonstrations with improved submergence tolerant T. Aman rice, Binadhan-11 in collaboration with DAE	To enhance the large scale cultivation of Binadhan-11 (**Location**:Rangpur, Sirajgonj, Comilla, Sunamgonj, Moulovibazar, Mymensingh, Kishorgonj, Jamalpur, Sherpur, Tangail, Gaibandha, Netrakona, Kurigram, Lalmonirhat, Nilphamari, Bogra, Habigonj, Manikgonj, Comilla)

Sl No.	Research Title	Objective(s)	Location
183	Piloting of short duration Aman rice, Binadhan-7 in collaboration with DAE in Barind area	To enhance the large scale cultivation of Binadhan-7 in Barind area	Rajshahi, Chapai Nawabganj Dinajpur
184	Piloting of Binasarisha-4/BARIGom-26/Binasola-4 in collaboration with DAE in Barind area	To enhance the large scale cultivation of Binasarisha-4/ BARIGom-26/ Binasola-4	Rajshahi, Chapai Nawabganj Dinajpur
185	Piloting of Binatil-1/2 and Binamoog-5/8 in collaboration with DAE in Barind area	To enhance the large scale cultivation of Binatil-1/2 and Binamoog-5/8	Rajshahi, Chapai Nawabganj Dinajpur
186	Block Demonstration with mustard variety Binasarisha-4 in collaboration with DAE	To enhance the large scale cultivation of Binasarisha-4 (**Location**: Faridpur, Madaripur, Gopalganj, Magura, Jessore, Chuadanga, Narail, Netrakona, Jamalpur, Sherpur, Tangail, Rangpur, Sirajgonj, Natore, Kushtia, Narayangonj, Kishorgonj, Dinajpur, Panchagor, Pabna, Thakurgaon, Gaibandha, Lalmonirhat, Nilphamari, Kurigram)	
187	Farmers' Observation Trials (FOTs) with newly released mustard variety Binasarisha-9 and Binasarisha-10 in collaboration with DAE	To identify the suitable area for the large scale cultivation of Binasarisha-9 and Binasarisha-10	Jessore, Mymensingh, Netrakona, Patuakhali, Magura
Block Demonstration			
188	Block Demonstration with sesame variety Binatil-1 and Binatil-2 in collaboration with DAE	To identify the sesame variety Binatil-1 and Binatil-2 in collaboration with DAE	Faridpur, Magura, Jessore, Chuadanga, Narail, Kushtia, Magura,Natore
189	Farmers' Observation Trials (FOTs) with newly released sesame variety Binatil-1, Binatil-2 and Binatil-3 in collaboration with DAE	To identify the suitable area for the large scale cultivation of Binatil-1, Binatil-2 and Binatil-3	Magura, Panchagor, Comilla
190	Block Demonstration with groundnut variety Binachinabadam-4 in Kharif-1 in collaboration with DAE	To enhance the large scale cultivation of Binachinabadam-4	Jhenaidah, Lalmonirhat, Kishorgonj, Panchagor
191	Block Demonstration with groundnut variety Binachinabadam-4 in Kharif-2 in collaboration with DAE	To enhance the large scale cultivation of Binachinabadam-4	Jhenaidah, Lalmonirhat, Natore, Kishorgonj, Panchagor, Gazipur

Sl No.	Research Title	Objective(s)	Location
192	Farmers' Observation Trials (FOTs) with newly released groundnut varieties Binachinabadam-6 in collaboration with DAE	To identify the suitable area for the large scale cultivation of Binachinabadam-6	Noakhali, Jhenaidah
193	Farmers' Observation Trials (FOTs) with newly released soybean variety Binasoybean-1, Binasoybean-2, Binasoybean-3 and Binasoybean-4 in collaboration with DAE	To identify the suitable area for the large scale cultivation of Binasoybean-1, Binasoybean-2, Binasoybean-3 and Binasoybean-4	Noakhali and Chandpur
194	Farmers' Observation Trials (FOTs) with mungbean varieties Binamoog-5, inamoog-7and Binamoog-8 in collaboration with DAE	To identify the suitable area for the large scale cultivation of Binamoog-5, Binamoog-7 and Binamoog-8	Magura, Barisal, Natore, Rangpur, Comilla
195	Block Demonstration with mungbean varieties Binamoog-5 and Binamoog-8 in collaboration with DAE	To enhance the large scale cultivation of Binamoog-5 and Binamoog-8	Jessore, Magura, Rajshahi, Nawgaon, Joypurhat, Bogra, Pabna, Natore, Rangpur, Jhenaidah, Satkhira, Khagrachori,
196	Block Demonstration with Lentil varieties Binamasur-5 in collaboration with DAE	To enhance the large scale cultivation of Binamasur-5	Madaripur, Shariatpur, Pabna, Gopalgonj, Rajbari, Faridpur, Kushtia, Magura, Natore, Bogra, Satkhira
197	Block Demonstration with Binasola-4 in collaboration with DAE	To enhance the large scale cultivation of Binasola-4	Rajshahi, Chapai Nawabganj, Magura, Jessore,

Sl No.	Research Title	Objective(s)	Location
BIOTECHNOLOGY DIVISION			
Development of Crop Varieties Through Biotechnological Approach			
198	Growing/Screening of M_1, M_2 and M_3 generation of different landracesand exotic rice germplasm using molecular markers	To select desirable mutants by using molecular markers	Mymensingh, Rajshahi
199	Evaluation of M_4 and M_5 generation of NERICA mutant lines for drought tolerance using phenotypic and molecular markers	To select desirable mutants/lines for drought and disease tolerance	Mymensingh, Chapai Nawabganj and Rajshahi
200	Zonal yield trial of some promising NERICA mutants for drought tolerance	To select drought tolerant mutants	Mymensingh, Chapai Nawabganj, Nachole and Rajshahi
201	Marker-assisted backcrossing (BC_2F_2 of Binadhan-7×FL-478) for development of salt tolerant rice lines	To introgress salt tolerant rice lines	Mymensingh,
202	On-firm trial of one promising Green Super Rice line	To evaluate yield potentiality of Green Super Rice lines	Mymensingh, Jamalpur, Ishurdi, Magura, Rangpur, Comilla and Khagrachari
203	Evaluation of selected salt tolerant rice lines with better grain quality in multi-location trials	To identify salt tolerant rice lines in PVS locations	Satkhira sadar, Kaligonj, Shyamnagar and Dumuria, Khulna
204	Evaluation of promising submergence tolerant rice germplasm in multi location trials	To identify submergence tolerant rice lines through PVS	Dhobaura, Nalitabari and Nokla
205	Screening, purification and morpho-molecular characterization of coastal rice landraces for salt tolerance	To identify salt tolerant rice lines from landraces	Satkhira Sadar, Kaliganj, Shyamnagar and Paikgacha
206	Screening of high yielding breeding rice lines possessing both salinity and submergence tolerance (with *Sub1*)	To select desirable lines for both salinity and submergence tolerance for salt and submerged affected areas	Mymensingh, Sherpur, Patuakhali and Kurigram

Sl No.	Research Title	Objective(s)	Location
207	Screening of both salinity and Zn deficiency tolerance elite breeding rice lines	To select desirable rice lines for Zn deficiency and salt tolerance	Satkhira sadar, Kaligonj, Shyamnagar, Chokoria and Bashkhali
208	Development of breeding lines combining Saltol and one additional QTL for salt tolerance through MABC	To develop breeding lines combining saltol and additional QTL salinity tolerance	Mymensingh
209	Association mapping for salinity and drought tolerance in rice genotypes	To develop breeding lines for salinity and drought, also to find out additional QTLs for salinity and drought tolerance	Mymensingh, Rajshahi, Chapai nawabgonj and Satkhira
210	Evaluation of Trans gressive Segregants in Stress tolerant rice lines	To develop stress tolerant rice varieties with higher yield	Mymensingh,
211	DNA fingerprinting and molecular characterization of varieties/mutants via molecular markers	To characterize varieties/mutants at molecular level	Mymensingh,
212	Expression and detection of salinity and drought induced genes through RT-PCR (Reverse transcriptase polymerase chain reaction)	To identify salinity and drought induced novel genes of rice	Mymensingh,
213	Cloning of salinity and drought induced rice genes through Gateway technology	To construct the clones of salinity and drought induced novel genes of rice	Mymensingh
214	Transfer of salinity and drought tolerant genes into rice through *Agrobacterium* mediated gene transformation	To develop salinity and drought tolerant transgenic rice varieties	Mymensingh

BANGLADESH SUGARCROP RESEARCH INSTITUTE

BANGLADESH SUGARCROP RESEARCH INSTITUTE

BREEDING DIVISION

Sl No.	Research Title	Objective(s)	Location
Collection and Preservation			
1	Collection, Evaluation and Conservation of Indigenous and Exotic Germplasm of Sugarcane.	• Collection and conservation of indigenous and exotic sugarcane clones for using as parent materials and commercial varieties • Enrichment of the germplasm bank and • Increasing the scope of hybridization	BSRI, Ishurdi, Pabna & RSRS, Gazipur
2	Collection and Conservation of Indigenous and Exotic Germplasm of Allied crops – Sugar beet, Date palm and Palmyra palm	• Collection and conservation of indigenous and exotic elite crops of sugar beet, date palm and palmyra palm as parent materials • Using the potential variety(s) for commercial cultivation • Enrichment of the germplasm bank and • Increasing the scope of hybridization/propagation	BSRI, Ishurdi, Pabna
3	*In vitro* preservation of sugarcane germplasm	• Preserving the genetic materials in in vitro condition and • Selecting the suitable mediacomposition for in vitro preservation	BSRI, Ishurdi, Pabna
Characterization and Documentation			
4	Characterization and Documentation of Sugarcane Genetic Resources	• Assessing the genetic diversity • Identifying the accession • Establishing relationship between the species • Computerizing the data for better crossing programme and • Establishing core collection	BSRI, Ishurdi, Pabna
5	Identification ofRed-rot resistant Germplasm of sugarcane using SSR Markers.	• Identification of germplasm resistant to red rot disease for using hybridization programme • Introgression of resistance gene through conventional breeding programme • Analyze genetic diversity among the germplasm	BSRI, Ishurdi, Pabna
Varietal Development			
6	Breeding for early maturing,short-duration and dwarf varieties of sugarcane	• Developing improved varieties of sugarcane for higher cane, sugar and goor yield • Selecting early maturing, short duration and dwarf varieties of sugarcane • Saving the time for crop production and • Saving the cane from lodging	BSRI, Ishurdi, Pabna
7	Breeding for drought tolerant varieties of sugarcane	Developing varieties tolerant to drought stress condition	BSRI, Ishurdi and Rajshahi
8	Breeding for salt tolerant varieties of sugarcane	Developing varieties tolerant to salinity stress condition	BSRI, Ishurdi and Khulna
9	Breeding for self-detrashing varieties of sugarcane	• Reducing the cost of production • Improving the quality of cane, sugar and goor • Increasing the income of farmers	BSRI, Ishurdi, Pabna

Sl No.	Research Title	Objective(s)	Location
10	Development of parent materials through inbreeding and cross-breeding of sugarcane germplasm	• Developing parent materials from the inbred lines and selection in subsequent populations of exotic and indigenous germplasm of sugarcane. • Developing parent materials from the interspecific crossing of officinarum and spontaneum species, and subsequent selection in F1 population and • Developing parent materials from the intraspecific crossing of officinarum species and subsequent selection in different test stages (F1 population)	BSRI, Ishurdi, Pabna
11	Evaluation of promising clones under different yield trials at different agro-climatic conditions	• Determining the performance and adaptability of the clones under varying agro-climatic conditions • Developing location specific variety and • Determining the ratooning potential of the clones	BSRI, Ishurdi, Rajshahi; Thakurgaon; Carew & Co., Joypurhat, Gazipur, Jamalpur and Khulna
12	Selection of sugarcane clone as chewing variety	• Developing location specific chewing variety • Selecting and evaluating the different clone(s) for the development of chewing variety	BSRI, Ishurdi, Rangamati, Khagrachari, Bandarban, Gazipur, Jamalpur, Mollahat, Bagerhat and Kalapara
13	Photoperiodic regulation of flowering in sugarcane	• Inducing flower at early in mid-late and late flowering genotypes • Inducing flower at late in early flowering genotypes • Inducing flower in sparse and non-flowering genotypes and • Synchronizing the flowering time of different genotypes	BSRI, Ishurdi
14	Development of Somaclonal Variant using Inflorescence/ Somatic Tissue of Sugarcane	• Developing somaclonal plant for higher cane and sugar yield, and red rot resistant flowering variety and • Inducing flower in non-flowering germplasm through plant tissue culture practice	BSRI, Ishurdi, Pabna
Varietal Improvement			
15	Nobilization of sugarcan clone through back-cros breeding	• Developing disease tolerant, high tillering and goodrationing ability variety(s) of sugarcane and • Increasing the scope of hybridization through parent material development.	BSRI, Ishurdi, Pabna
16	Varietal improvement through mutation	• Developing variety having high sucrose content and • Developing high yielding varieties resistant to red rot disease	BSRI, Ishurdi, Pabna

Sl No.	Research Title	Objective(s)	Location
17	Rejuvenation of degenerating sugarcane germplasm through *in vitro* culture	• Regenerating the degenerating varieties of sugarcane and • Getting benefit from the degenerating varieties of sugarcane	BSRI, Ishurdi, Pabna
Varietal Improvement			
18	Selection of sugarcane varieties suitable forgoor production in saline belt under southern region.	Selecting the suitable cane varieties with high yield and recovery for goor production in saline belt under southern region	Southern region Rahmatpur
19	Performance of chewing varieties in saline belt under southern region.	Selecting the suitable cane varieties for chewing in saline belt under southern region	Southern region Rahmatpur
20	Effect of tidal water on growth and yield of sugarcane in southern region of Bangladesh	Selecting the suitable cane varieties for tidal and disaster prone area under southern region	BADC farm, Dasmina, Patuakhali
21	Demonstration on the production of BSRI bred varieties in saline area of southern region.	To disseminate the varieties among the farmers	Different locations of southern region
22	Farmers'training on modern sugarcane and intercrop production technologies.	Developing knowledge regarding sugarcane cultivation among the farmers	Different locations of southern region
23	Performans of latest sugarcane varieties as plant and ratoon at aez 9	• Finding out suitable sugarcane varieties as plant and ratoon cane in AEZ 9 • Identifying the potentiality of these variety for yield and gur production as plant and ratoon cane	Nakla, Sherpur and Melandha, Jamalpur
24	Agronomic evaluation of promising chewing varieties of sugarcane in aez 9	• Finding out the comparative performance of different promising varieties of chewing cane • Increasing farmers income through chewing cane cultivation	Nakla, Sherpur and Lawchapra, Jamalpur
25	Selection of BSRI Bred Latest Sugarcane Varieties Suitable for Gur Production in Sirajgonj Region	• To select suitable cane varieties with high yield and recovery for gur production in Sirajgonj region. • Increasing the cane area as well as yield and gur production by selecting the best sugarcane variet	Sirajgong, Kamarkhand

Sl No.	Research Title	Objective(s)	Location
Seed Multiplication			
26	Seed multiplication of promising clones/varieties of sugarcane	• Supplying seeds of the promising clones for setting up of different experiments and for further multiplication • Producing clean seed for nucleus seed programme and • Maintaining the source of clean seed of released varieties	

BIOTECHNOLGY DIVISION

Varietal Improvement			
27	Genetic Transformation of Salt and Drought Tolerant Genes in Sugarcane	• To collect and maintain Agrobacterium strains with salt and drought tolerant genes; • To transfer salt and drought tolerant genes in sugarcane • Confirmation of transformation and expression of salt and drought tolerant genes in sugarcane; and • Transgenic sugarcane development	BSRI BAU and DU Lab.
28	Characterization and Documentation of Sugarcane Using Molecular Markers	• Identification of sugarcane varieties, active germplasm and developed somaclones through DNA Fingerprinting • Determination of genetic varieties among the sugarcane varieties, active germplasm and somaclones using molecular markers • Documentation of sugarcane varieties based on molecular markers; and • To develop Marker Assisted Selection (MAS) method for sugarcane	BSRI BAU and BJRI Lab.
29	Genetic Enhancement of Sugarcane through Development of Stress Tolerant Somaclones and their Field Evaluation	• Development of somaclones under selection pressure using NaCl, polyethylene glycol and mutagenic agents • Evaluation and selection of somaclones for salinity and drought as well as sugarcane somaclones with desirable traits • Genetic enhancement for salinity, drought tolerance and desirable traits in sugarcane	BSRI Terokhada-Khulna and Barind Tract Rajshahi.
30	Development and Screening of Sugarcane Somaclones Against Red Rot Disease	• Development of somaclones under in vitro selection pressure for red rot tolerance in sugarcane • Evaluation and selection of red rot tolerant somaclones; and • To develop red rot tolerant sugarcane somaclones	BSRI Lab and Field
31	Micropropagation of Sugarcane Varieties for Rapid Multiplication And High Quality Seeds (Hqs) Production	• To optimize variety specific media for micropropagation • Production of micropropagated plants for high quality seed • To evaluate field performances of micropropagated plants • To evaluate genetic stability in micropropagated plants using DNA Fingerprinting	BSRI Lab and Field

Sl No.	Research Title	Objective(s)	Location
32	Micropropagation for Vegetaive Seed Production of Sugarbeet	• To identify the suitable sources of explants for micropropagation • To find out suitable media for micropropagation • To develop tissue culture protocols for micropropagation of Sugarbeet and • To harden plantlets for transplanting	BSRI Lab. and Pot
33	Tissue Culture for Multiplication of Arabian Date Palm	• Identification of suitable source of explants • To find out suitable media • Production of plantlets; and • Development of tissue culture protocols for Arabian Date Palm	BSRI Lab and Pot

AGRONOMY& FARMING SYSTEMS DIVISION

Sl No.	Research Title	Objectives (in short)	Location
34	Agronomic evaluation of BSRI developed promising sugarcane clones	• To study the comparative performance of different promising clones under conventional method • To find out the optimum time of planting for advanced promising clones of sugarcane • To generate agronomic information to meet up the requirement of National Seed Board	BSRI farm
35	Field performance of seedling of sugarcane developed through tissue culture technique	• To identify an economic source of micro propagated plantlet as planting materials compare to the existing ones • To find out the highest production potential of planting materials from different source of setts/seedlings • To reduce the quantity of seed cane for commercial cultivation. • Using micropropagated plantlet as quality seed material for increasing sugarcane production	BSRI farm
36	Productivity of maize as intercrop with sugarcane	• To observed the suitability of maize as intercrop with sugarcane • To increase productivity and interim economic benefit per unit area and time of sugarcane field	BSRI farm and RSRS, Thakurgoan
37	Development of suitable sugarcane based cropping systems for higher productivity and economic benefit	• Identifying suitable sugarcane based cropping systems incorporating T. Aman rice as previous crop and • To increase total crop production and economic benefit from per unit area and time	BSRI farm
38	Efficacy of herbicides for controlling weeds in sugarcane field	• To study the performance of herbicides in controlling weeds in sugarcane field • To compare cultural and chemical methods of weed control in respect of efficiency and cost of weed control • To study the abundance of weed species in the sugarcane field	BSRI, Ishurdi
39	Effect of spacing on the production of	• To find out optimum row and plant to plant space for higher yield	BSRI,

Sl No.	Research Title	Objective(s)	Location
	tropical sugarbeet	• To determine growth parameters varied for different spacing of sugarbeet plantation	Ishurdi
40	Determination of harvesting times of different tropical sugarbeet varieties	• To find out pick maturity period of tropical sugarbeet varieties • To determine optimum harvesting time to extract maximum sugar from beet root	BSRI, Ishurdi
41	Study on growth performance of different tropical sugarbeet varietie	• Determining the growth performance of tropical sugarbeet varieties at different times • Selection of suitable sugarbeet varieties based on growth performance	BSRI, Ishurdi
42	Effect of salinity on germination, growth and yield of tropical sugarbeet varieties	• To observe the salinity effect on germination, growth and yield of sugarbeet varieties • Screening of sugarbeet varieties against salinity	BSRI, Ishurdi
43	Performance of sugarbeet as intercrop with paired row sugarcane	• To study the possibility of growing sugarbeet as intercrop with sugarcane • To study the productivity of sugarbeet as intercrop with paired row sugarcane	BSRI Ishurdi
44	Productivity of sugarcane varieties under sustainable sugarcane initiative (SSI) technology	• Identifying suitable sugarcane varieties for Sustainable Sugarcane Initiative (SSI) • Reducing the cost of Production and increase the yield of Sugarcane	BSRI, Ishurdi
45	Study On Manure Requirement For Homestead Organic Chewing Cane Cultivation	• To find out appropriate dose of manure. • To investigate the problem of organic cane cultivation system • To study the economic feasibility of organic chewing farming	Chuadanga
46	Multiplication And Cultivation Of Stevia Using Different Doses Of Organic Matter Under AEZ 11	• Multiplying and disseminating stevia to Chuadanga area • Cultivating stevia for its various utilization • Find out appropriate dose of organic matter for stevia cultivation in AEZ 11	Chuadanga
47	Development of inm based practices for sugarcane and intercrops in aez 9	• Developing suitable INM practices for sugarcane and intercrops in AEZ 9 • Maintaining soil health by INM practices and decrease the cost of cultivation	BSRI Jamalpur Campus
48	Performance of different intercrops with sugarcane in paired row system	• Selecting suitable intercrops for sequential intercropping in paired row sugarcane • Studying the effect of sequential intercropping on growth yield and quality of sugarcane	BSRI Jamalpur Nakla, Sherpur

PHYSIOLOGY & SUGAR CHEMISTRYDIVISION

49	Screening Sugarcane Genotypes under ZYT -I, II & III against Water-logging Stress	• To select sugarcane clones with superior tolerance to water-logging condition • To find out morphological and physiological basis for water-logging tolerance to sugarcane • To identify parents to use in further crossing programme to develop water-logging tolerant varieties	Lalpur Jamalpur BSRI (pot) BSRI (Field)
50	Screening Sugarcane against Flood Stress	• To select clones with superior tolerance to Flood stress	BSRI (pot) Chunarughat

Sl No.	Research Title	Objective(s)	Location
		• To find out morphological and physiological basis for flood tolerance to Sugarcane • To identify parents to use in further crossing programme to develop flood tolerant varieties	(Hobiganj) Lalpur
51	Screening Sugarcane against Drought Stress	• To select sugarcane clones with superior tolerance to drought stress • To find out morphological and physiological basis for drought tolerance to sugarcane • To identify parents to use in further crossing programme to develop drought tolerant varieties	BSRI (PVC Pipe) RSRS(Thakur gaon) Godagari (Rajshahi)
52	Effects of Ethephon on Drought Resistance of Sugarcane	• Selecting suitable doses of Ethephon for getting drought tolerant varieties of Sugarcane and • Improving the drought tolerance ability	BSRI Farm
53	Screening Sugarcane Genotypes under ZYT -I, II & III Against Salinity Stress	• To select sugarcane clones with superior tolerance to salinity. • To identify morphological and physiological characters of salinity tolerance • To identify parents to use in further crossing programme to develop salinity tolerant varieties	Terokhada (Khulna)
54	Effects of Salinity on Growth, Yield and Goor Quality of Promising Sugarcane Varieties at Southern Region of Bangladesh	• Selecting sugarcane varieties with superior tolerance to salinity and • Determining the salinity level of cane juice and goor	Terokhada (Khulna)
55	Germination Potentiality of Advanced Sugarcane Clones under Low Temperature Stress Condition	To evaluate BSRI bred advanced sugarcane clones having inbuilt potential to germinate under lower ambient temperature	BSRI Farm
56	Determination of apparent free space and assimilatory apparatus for sucrose accumulation under water logging stress condition in sugarcane	To compare the size of apparent free space, rate of uptake of sucrose by storage tissue in different varieties	BSRI, Ishurdi
57	Determination of apparent free space and assimilatory apparatus for sucrose accumulation under flood stress condition in sugarcane	To compare the size of apparent free space, rate of uptake of sucrose by storage tissue in different varieties	BSRI, Ishurdi
58	Effect of plant growth regulators on the	• To investigate some physiological parameters,	BSRI,

Sl No.	Research Title	Objective(s)	Location
	Growth and yield of stevia	crop growth rate (CGR), relative growth rate (RGR), net assimilation rate (NAR) and leaf area index (LAI) • To determine the leaf production of stevia	Ishurdi
59	Screening Sugarcane Clones Based on Maturity Behavior and Goor Manufacture	• To determine maturity behavior of sugarcane clones and find out peak maturity period • To screen sugarcane clones Suitable for Goor production • To determine the quality of Goor after preparation	BSRI, Ishurdi
60	Optimization of techniques for Date Palm Juice Syrup Preparation and Preservation	• To prepare syrup at different oncentrations (Brix%) • To preserve syrup in bottle • To observe shelf life of preserved syrup	BSRI, Ishurdi
61	Optimization of techniques for sugarcane juice Preparation and Preservation	• To optimize the techniques for preservation of ready-to-serve bottled sugarcane juice of consumer acceptability • To observe shelf life of preserved sugarcane juice	BSRI, Ishurdi
62	Influence of Integrated Nutrient Management on Yield And Quality of Sugarcane	• Assessing the impact of manures with inorganic fertilizers applied in different time on the growth, yield and quality of sugarcane • Evaluating the residual effect of manures and chemical fertilizers on the post harvest soils and • Determining economic use of manures with chemical fertilizers applied in different time for cane cultivation and quality goor production	BSRI, Ishurdi
63	Screening Sugar beet Based on Maturity Behavior	• To determine maturity behaviour of sugar beet genotypes and find out peak maturity period • To determine suitable process of Goor production from Sugarbeet • To determine the quality of Goor after preparation	BSRI and Yard
64	Performance of BSRI bred Sugarcane varieties for goor production in Chittagong Hill Districts	• To study the performance of BSRI developed sugarcane varieties for superior Goor production in the Chittagong hill districts • To determine the quality of prepared Goor from different sugarcane varieties	Rangamati Khagrachari Banderban
65	Determination of Phosphate Content in the Clones Under ZYT-I, II & III Test Stages	• Determining the level of phosphate in different sugarcane varieties/clones for better juice clarification • Identifying varieties/clones containing higher phosphate level to help in breeder for further crossing programme	BSRI, Ishurdi

Sl No.	Research Title	Objective(s)	Location
PATHOLOGY DIVISION			
66	Screening of sugarcane genotypes under ZYT-III, ZYT-II, ZYT-I, AYT, PYT, irradiated and tissue culture derived clones to red rot	• Identifying and selecting the sugarcane genotypes having higher level of resistance against red rot disease • Recommendation of new resistant varieties and tolerant clones for final release to the growers and to preserve in the gene bank for breeding purposes	BSRI Ishurdi, RSRS, Thakurgaon
67	Screening of Sugarcane Genotypes to Wilt Disease	• Identifying and selecting the sugarcane genotypes having superior resistance to wilt disease • Recommendation of new resistant /tolerant varieties/ clones for final release to the growers	BSRI Ishurdi, RSRS, Thakurgaon
68	Screening of sugarcane genotypes under ZYT-III, II, I and AYT to smut disease	• Identifying and selecting the sugarcane germplasms having superior resistance to smut disease • Recommendation of new resistant /tolerant clones/ varieties for commercial cultivation	BSRI Ishurdi
69	Screening of Sugarcane Genotypes to Pineapple Disease	• Identifying and selecting the sugarcane germplasms having superior resistance to pineapple disease • Recommendation of new resistant /tolerant clones/ varieties for commercial cultivation	BSRI Ishurdi
70	Observation on Disease Incidence of Different Genotypes of Sugar Beet in Bangladesh	• Identifying and selecting the sugar beet genotypes having higher level of resistance/ tolerance against major diseases • Recommendation of new resistant varieties/tolerant clones of sugar beet for final release to the growers	BSRI Ishurdi
71	Effects of Moist Hot Air Treatment (MHAT) on Control of Red Rot (*Colletotrichum falcatum*) and Yield of Chewing Cane	• Calibrating the appropriate temperature duration by MHAT for complete eradication of seed borne pathogen specially Colletotrichum falcatum • Increasing the productivity of chewing cane	BSRI Ishurdi
72	Effects of Planting Time on Incidence of Smut Disease and Productivity of Sugarcane	• Determining the best time of planting for escaping smut disease • Reducing the loss caused by smut disease	BSRI Ishurdi
73	Comparative Performance of *Trichoderma* spp. and Sett Treating Chemicals in Controlling Sett Rot Disease of Sugarcane	• Determining the performance of Trichoderma spp. over sett treating fungicides in controlling sett rot disease of sugarcane. • Utilizing the bio-control agents for controlling sugarcane diseases.	BSRI Ishurdi, RSRS, Thakurgaon

Sl No.	Research Title	Objective(s)	Location
74	Management of Sclerotium Root Rot of Sugarbeet	• Investigating of effective fungicides/bio-agents against Sclerotium rolfsii under field condition • Find out the appropriate control measures for Sclerotium root rot of sugarbeet	BSRI Ishurdi
75	Production and Distribution of Disease Free Clean Seed of Sugarcane	• Producing disease free clean seeds to meet up the requirement of different divisions of BSRI and out-station experiment • Distributing the disease free clean seeds to the mills and non-mill zones for further multiplication • Minimizing the disease incidence of sugarcane throughout the country	BSRI Ishurdi, RSRS, Thakurgaon, Rangamati, Khagrachari & Bandarban
76	Enhancing The Efficacy Of *Trichoderma* Based Management System For Controlling Sclerotium Root Rot Of Sugarbeet	• Enhancing efficacy of Trichoderma based sclerotium root rot management system • Minimizing cost of production of sugar beet	Chuadanga

ENTOMOLOGY DIVISION

Sl No.	Research Title	Objectives (in short)	Location
77	Screening of Selected Sugarcane Clones for Possible Resistance against Some Major Pests in ZYT I, II and III	• Screening advanced clones for possible resistance to Top shoot borer, Early shoot borer, Rootstock borer, Stem borer, Pyrilla leaf hopper, Black leaf hopper, Scale insect, Mealy bug, Termites and White grubs • Comparing selected clones with standard to fulfill the requirement of National Seed Board (NSB)	BSRI, Ishurdi RSRS, Thakurgaon f
78	Seasonal Abundance of Major Insect Pests of Sugarcane and Their Natural Enemies	• Determining the population density /fluctuation through out the year/cropping season • Finding the prevalence of their natural enemies • Recording the new insect pests and natural enemies	BSRI, Ishurdi
79	Mass rearing of Bio-agents in the Laboratory	• Maintaining bio-agents stock in the laboratory • Ensuring availability of bio-agents for field release as a component of IPM	BSRI, Ishurdi
80	Effects of Planting Time on Borer infestations in Sugarcane	• Finding the infestation of sugarcane borer at different time • Estimating the yield and recovery at harvest	BSRI, Ishurdi
81	Development of Integrated Management Approaches against sugarcane stem borer	• Finding suitable management practices against stem borer • Comparing the effectiveness of various treatmen	BSRI Ishurdi & Growers plot, Pustigacha, Pabna

Sl No.	Research Title	Objective(s)	Location
82	Effects of Entomopathogenic Fungi M*etarhizium anisopliae* and B*eauveria bassiana* on Sugarcane white Grubs and Rootstock Borer	• Finding the effectiveness of Metarhizium anisopliae and Beauveria bassiana on sugarcane white grubs and rootstock borer • Finding a suitable dose for the management of white grubs and rootstock borer	RSRS, Thakurgaon farm
83	Development of Integrated Management Approaches against Sugarbeet caterpillar, *Spodoptera litura* Fab. in sugarbeet	• Finding the effective management practices for sugarbeet caterpillar • Comparing the effectiveness of various treatments	BSRI, Ishurdi
84	Effect of Different Management Practices against Sugarcane Scale Insect	• Finding effective management practices for sugarcane scale insect. • Estimating the effects of scale insect on yield and sugar recovery	FSM, Faridpur farm
85	Development of Management Practices against Grass Hopper in Faridpur Sugar Mills Area	• Finding out suitable management practices against sugarcane grass hopper. • Finding suitable insecticides against sugarcane grass hopper	Growers plot of Faridpur Sugar Mills area
86	Effects of Different Practices on the infestation of Black Beetle in Sugarcane.	• Finding suitable management practices against Black beetle • Estimating the yield of sugarcane in different management practices	Growers plot of NBSM, Nator
87	Screening of Insecticides against Some Major Insect Pests of Sugarcane	• Finding the efficacy of insecticides against some major insect pests of sugarcane • Finding alternative and cheaper insecticide against major insect pests of sugarcane	Ishurdi, Thakurgaon, Bhabanipur
88	Observation Trial on the Spaced Transplanting (STP) and Conventional Planting Methods for The Incidence of Sugarcane Insect Pests.	• Comparing the incidence of sugarcane insect pests between spaced transplanting (STP) and conventional planting methods • Observing the yield and recovery of spaced transplanting (STP) and conventional methods of planting	BSRI, Ishurdi
89	Observation Trial on themanagement of sugarcane borers with sex pheromone trap	• Finding the effectiveness of pheromone lures against borers (Chilo sp.) • Monitoring the trapped moths in the field • Enriching the component of IPM for the management of sugarcane borer	BSRI, Ishurdi

ON-FARM RESERACH DIVISION

90	Performance of Promising Sugarcane Clones at Different AEZs Under Farmers' Condition	Evaluating the field performance of advanced clones/lines under varied AEZs	Thakurgaon , Rajshahi (Barind) , Jamalpur , Chunarughat (Habiganj) , Gaibandha , Barisal and Chuadanga

Sl No.	Research Title	Objective(s)	Location
91	Evaluation of Different Chewing Varieties/ Clones with Double Intercropping in Farmers' Field at Hill Districts	• Evaluating the performance of chewing varieties / clones at hill districts • Identifying suitable chewing varieties/ • clones for location specific recommendation and • Estimating the economic performance and profitability of chewing cane with Bushbean as intercrop at different hill districts	Bandarban, Khagrachari and Rangamati
92	Year Round Cultivation of Chewing Cane in the Homestead Area	• Creating wage and self employment opportunities year the round • Optimizing the utilization of fallow land as well as homestead • Meet up the unmade demand of nutrition and • Improving the socio-economic conditions of the farmers	BSRI, Ishurdi, Pabna
93	Suitability of Chewing Cane in Saline Belt of Southwestern Region	• Identifying the salt tolerant chewing varieties/clones • Estimating economic benefit and profitability of chewing cane in southern region	Khulna and Satkhira
94	Effect of Planting Time on Chewing Varieties of Sugarcane	• Determination of planting time and varieties on growth and yield of chewing cane • Finding the effect of planting time on quality of chewing cane and • Estimating economic performance of Chewing cane	RSRS, Gazipur
95	Effect of Late Plantation on Maturity Behaviour of BSRI Released Sugarcane Varieties in Sugar Mill Zone	• To identify the performance of salt tolerant chewing varieties/clones. • To find out the economic performance and profitability of chewing cane in the southern region of Bangladesh	Natore / Rajshahi

SOIL & NUTRITION DIVISION

96	Potency of Biosar- an enriched compost on sustainable sugarcane production	• Evaluating and developing an economically suitable package with Biosar and inorganic fertilizers for sustaining yield of sugar and sugarcane. • Improving soil health through integrated use of Biosar and inorganic fertilizer for maintaining stable soil fertility, microbial population and apparent nutrient balance in soil.	BSRI, Ishurdi
97	Isolation and characterization of nitrogen-fixing bacteria from sugarcane	• Isolation of nitrogen-fixing bacteria from rhizosphere, roots and stem of the sugarcane • Determination of biochemical and genetic characterization of the bacteria • Investigating the nitrogen fixation capacity of the bacteria	BSRI Ishurdi

Sl No.	Research Title	Objective(s)	Location
98	Effect of diazotrophic bacteria on growth and yield of sugarcane	• Determining the nitrogen fixing capacity and growth hormone production of diazotrophs • Evaluation of the effect of diazotrophs on growth and yield of sugarcane	BSRI Ishurdi
99	Application of dolomite on acid soil for sustainable sugarcane production	• Evaluation of the effect of dolomite on soil properties in acidic soil • Finding out the effects of dolomite on yield of sugarcane in acidic soil	Gazipur & RSRS , Thakurgaon
100	Management of salt-affected soils for sustainable sugarcane production	• Determining the properties of saline soils and irrigation water in saline area • Developing appropriate nutrient packages using gypsum alone or in combination with manure for sustaining sugarcane yield	Khulna and Satkhira
101	Efficacy of the mixed fertilizers for sustainable sugarcane production	• Ensuring application of balanced dose of fertilizer in sugarcane through mixed fertilizer • To combat diversion of fertilizers credited for sugarcane to other crops by the farmers • Finding out the economics of using mixed fertilizers for sugarcane production	BSRI and Faridpur
102	Site specific fertilizer requirement for sugarbeet production	Determining appropriate rate of fertilizers for sugar beet production	BSRI , Ishurdi and RSRS farm, Thakurgaon
103	Nutrient requirement for sustainable sugarcane production under different AEZs	Finding out the optimum and economic nutrient requirement for sustainable sugarcane production in different AEZs	Chuadanga, Rangpur & Chittagong Hill Tracts
104	Effect of boron application on yield and quality of sugarbeet	• Finding out the effect of boron application on yield and quality of sugarbeet • Comparing the effects of soil and foliar application of boron on sugarbeet	BSRI, Ishurdi & RSRS farm, Thakurgaon
105	Efficacy of urea super granule (usg) as a source of nitrogen in sugarcane production	• Comparing the traditional N source of prilled urea with USG for improving N use efficiency in sugarcane. • Determining the optimum dose of USG for higher sugarcane yield. • Minimizing the cost of N fertilizer for obtaining higher economic return	BSRI, Ishurdi
106	Influence of fertilizer management on flower induction of sugarcane	• Identifying appropriate fertilizer management practice for fruitful flowering in sugarcane • Comparing the genotypic response in floral induction due to fertilizer management	BSRI, Ishurdi

AGRICULTURALECONOMICS DIVISION

107	Financial analysis of sugarcane production and its marketing in hilly areas of Bangladesh	• Estimating the profitability of sugarcane in hilly area • Investigating the present marketing system of sugarcane • Identifying the problems/ constraints of sugarcane production and marketing in hilly area	Bandarban, Rangamati and Kagrachari

Sl No.	Research Title	Objective(s)	Location
108	Study on determination of sugarcane procurement price in mill zone are	• Estimating the production cost of sugarcane • Finding the profit margin in order to assess the price of sugarcane • Recommending a suitable price of sugarcane for the farmers	TSM, FSM, Carew and Co, RJSM, and ZBSM area
109	Comparative economic study of sugarcane cultivation with different cropping patterns	• Estimating the economic potentiality of sugarcane cultivation with different cropping patterns • Identify constraints of sugarcane cultivation	ZBSM, FSM, Carew and Co, RJSM and TSM area
110	Financial assessment of sugarcane cultivation with intercrops	• Determining the economic profitability of sugarcane cultivation with intercropping system • Estimating the relationship between inputs and outputs of sugarcane cultivation with intercropping system • Identifying constraints of sugarcane cultivation with intercropping system	Chapai Nawabganj, Joypurhat. Thakurgaon and Chuadanga districts
111	Financial analysis of sugarcane cultivation in selected areas of char lands of Banglades	• Determination of cost and returns of sugarcane production in char lands • Exploring the present socio-economic condition and opportunities of sugarcane production in char lands and • Find out the major constraints of sugarcane cultivation in char lands	Lalmonirhat, Kurigarm, Gaibandha and Sirajgonj districts

AGRICULTURALENGENEERING DIVISION

112	Development and performance evaluation of IISR developed pan & furnace and waste heat recovery system for goor production.	• Improvement of the pan and furnace of conventional unit to efficient heat utilization • Development of waste heat recovery system • Performance evaluation of the system and • Compare the improved system to traditional system.	BSRI, Ishurdi, Pabna
113	Production of biogas and organic manure from press mud and sugar beet pulp	• Promotion of appropriate technological options to produce biogas and organic manure from press mud and sugar beet pulp • Enhancing the economic viability of waste treatment methods and to minimize adverse environmental impacts on the surrounding and • Enhancing the economic viability by the use of the produced biogas as energy source to meet heat and/or electricity requirement and selling organic manure	BSRI, Ishurdi, Pabna
114	Design and development of sugar beet slicer and diffuser	• Design and development of a low cost sugar beet slicer • Development of local technology for juice extraction from sugar beet and	BSRI, Ishurdi, Pabna

Sl No.	Research Title	Objective(s)	Location
		• Testing and evaluating the performance of the slicer and diffuser	
115	Improvement of BSRI developed sugarcane crusher for efficient juice extraction	• Modification and improvement of the BSRI developed power crusher; and • Testing and evaluating the performance of BSRI developed power crusher	BSRI, Ishurdi, Pabna
116	Performance evaluation of bed planter for sugar beet seed sowing	• Testing and evaluating the field performance of bed planter for sugar beet sowing; and • Comparing the cost of seeding by bed planter with manual method	BSRI, Ishurdi, Pabna
117	Determination of Optimum Water Requirement For Sugar beet.	• To find out optimum water requirement for different sugar beet variety. • To determine the optimum irrigation water based on climatic and soil data. • To determine yield, yield components, saline sensitivity and water use efficiency	BSRI, Ishurdi, Pabna
118	Optimization of water management practices for increased productivity of chewing cane	• Finding out a judicious irrigation and drainage requirement for sugarcane. • Determination of irrigation timing based on climate, crop and soil data. • To determine yield, yield components, drought sensitivity and water use efficiency of sugarcane subject to water stress	BSRI, Ishurdi, Pabna
119	Design and development of drip irrigation system for chewing cane in Bangladesh	• Design and Development of low cost drip irrigation system with locally available materials. • Performance evaluation of drip irrigation system for chewing cane	BSRI, Ishurdi, Pabna
120	Development of irrigation scheduling using alternate furrow irrigation for sugarcane cultivation	• Development of irrigation scheduling using alternate furrow irrigation for profitable sugarcane cultivation • To verify and to study the effect of the alternate furrow irrigation method on the sugarcane productivity • Development of water saving technique without compromising yield	BSRI, Ishurdi, Pabna
121	Demonstration of BSRI developed power weeder for sugarcane in mill zone and non-mill zone areas	• Evaluating performance of BSRI power weeder for sugarcane in the farmer's field, • Improving the workmanship of the machines/tools getting feedback from the demonstration, • Creating interest among the farmers on the use of these machines and • To stimulate local manufacturers for manufacturing these machines	BSRI HQ, Mill zone and non-mill zonees

TRAINNING & TECHNOLOGY TRANSFER DIVISION

122	Extent of adoption of modern sugarcane varieties and production	• To determine the extent of the level of adoption of BSRI developed modern sugarcane varieties and production technologies in the sugar mills and non-mill zones	Mill zone (TSM, NBSM and Carew & Co) Non- Mill

Sl No.	Research Title	Objective(s)	Location
	technologies in some selected sugar mills and non mill zones	• To assess the levels of awareness and knowledge of the sugarcane farmers regarding BSRI recommended sugarcane production technologies • To identify the bottlenecks that stand against adoption of modern sugarcane production technologies • To ascertain the differences in the extent of adoption of modern sugarcane varieties and production technologies between the growers of sugar mills and non-sugar mills zones	zone (Sirajgonj, Nawabganj, Tangil & Satkhira
123	Monitoring of technology based subsidy programme in sugarcane	• To monitor, review and repay the gaps in implementing the subsidy based technology transfer programme • To identify the mid-term success to the govt./authority about the subsidy based technology transfer programme • To make a bridge between programme planner and implementers	15 Sugarmill zones
124	Training of Agriculture Extension Officers of DAE (non-mill zone) and assistant managers of BSFIC on modern technologies of sugarcane and intercrops production	• To make the trainees to advise their subordinate extension workers as well as sugarcane growers (both mills and non-mill zones) about the modern sugarcane production technologies • To make the participants to suggest the sugarcane growers to produce intercrops methodologically • To make the trainee officers to advise the gur processors to produce quality gur hygienically	BSRI, Ishurdi, Pabna
125	Training of Sub Assistant Agriculture Officers of DAE and Sub Assistant Cane Development Officers (SACDO) of BSFIC on appropriate technologies of sugarcane and intercrops production	• To update the trainees to advise the sugarcane farmers about the modern sugarcane production technologies • To make the participants to suggest the sugarcane farmers to produce intercrops methodologically • To make the trainee officers to advise the goor processors to produce goor hygienically	BSRI, Ishurdi, Pabna
126	Training of Cane Development Assistant of BSFIC on modern sugarcane and intercrops production technologies	• To update the trainees to advise the sugarcane growers about the modern sugarcane production technologies • To make the participants to suggest the sugarcane growers to produce intercrops methodologically	BSRI, Ishurdi, Pabna
127	Training of improved sugarcane farmers of mill and non- mill zones on sugarcane and intercrops production technologies	• To update the farmers about improved sugarcane and intercrops production technologies • To make the farmers to be able to advise other neighbour sugarcane farmers about improved sugarcane and intercrops production technologies	BSRI, Ishurdi, Pabna
128	Demonstration on	• Updating the farmers about improved	Ishurdi,

Sl No.	Research Title	Objective(s)	Location
	BSRI bred latest sugarcane varieties	sugarcane and intercrops production technologies • Mentoring the farmers to be able to advise other neighbour sugarcane farmers about improved sugarcane and intercrops production technologies	Jamalpur, Pabna, Joypurhat, Kustia, Chuadanga, Jessore, Narial, Barisal, Habigong, Bandarban, Khagrachari
129	Demonstration on paired-row sugarcane with double intercrop	• To update the farmers about improved sugarcane and intercrops production technologies • To make the farmers to be able to advise other neighbour sugarcane farmers about improved sugarcane and intercrops production technologies	Ishurdi, Jamalpur, Pabna, Joypurhat, Kustia, Chuadanga, Jessore, Narial, Barisal, Habigong, Bandarban& Khagrachari
130	Demonstration on quality goor production	• To update the farmers about improved sugarcane and intercrops production technologies • To make the farmers to be able to advise other neighbour sugarcane farmers about improved sugarcane and intercrops production technologies	Khagrachari, Bandarban, Rangamati, Singair, Tangail, Sirajgonj and Madaripur
Technology Transfer			
131	Clean Seed Production and Distribution in Chuadanga	Multiplying and disseminating disease free BSRI AKH 41 to Chuadanga area	Mill zone, Chuadanga
TOT and Socio economic			
132	Production of disease free clean seed cane	• To introduce and extend disease free seeds of recommended varieties in non mill zone area • To ensure disease free seed cane for experiment and demonstration purpose to be used by BSRI and DAE for next season • To motivate the farmers in adapting new varieties and accelerate its dissemination	Southern region

SOIL RESOURCE DEVELOPMENT INSTITUTE

SOIL RESOURCE DEVELOPMENT INSTITUTE

Sl No.	Research Title	Objectiv(s)	Location
1	Soil Fertility, Land use and Management Monitoring	• To find the impact of different cropping practices on soil physical and chemical properties • To identify the changes in physical and chemical properties of soil • To recommend proper soil management practices for achieving highest yield goal	Countrywide through Regional and district office
2	Soil and Water Salinity Monitoring	• To determine the soil and water salinity round the year and to delineate area under different degrees of salinity • To determine the particular time frame in a year when surface water is suitable for irrigation • To record present land use and crop response to saline soil • To provide necessary database for developing appropriate technology to deal with the changed situation	Countrywide through Regional and district office
3	Effect of Different Hedge Species on Soil Erosion and Crop Yield under Different Hill Slopes of Chittagong Hill Tract	• To assess role of different hedge species and alley width in controlling soil erosion • To estimate soil loss under different hedge species and alley width at different slope	Chittagong Hill Tract (Bandarban)
4	Rehabilitation of Degraded Land by Using Geo-Jute Textile in Chittagong Hill Tracts	• To study the performance of Geo-Jute to rehabilitate and stabilize degraded lands • To compare soil loss and runoff under different types of Geo-jute textile	Chittagong Hill Tract (Bandarban)
5	Reclamation of Degraded Land by Gabion Check Dam and Vegetative Measures in Amrapali Orchard CHT	• To check widening and head extension of gully • To retain sediments/debris washed away with run-off water • To stabilize the gully bank	Chittagong Hill Tract (Bandarban)
6	Effect of Modern Method of Cultivation on Soil Erosion, Runoff and Nutrient Mining in Ginger, Turmeric and Taro Field at Moderate Hill Slopes in CHT	• To estimate soil loss, runoff and nutrient mining under modern cultivation system of ginger, turmeric and taro using hedge in contour • To compare soil loss among these crops • To calculate the effect of soil loss on soil chemical properties	Chittagong Hill Tract (Bandarban)
7	Study on the Yield Performance of Three Water Melon Varieties under Slightly to Moderate Saline Soil	• To study yield performance of three water melon varieties under slightly to moderate saline soil • To increase cropping intensity in saline area	Salinity Management and Research Center (SMRC) Batiaghata, Khulna.

Sl No.	Research Title	Objectiv(s)	Location
8	Study on the Yield Performance of Four Varieties of Okra under Slightly to Moderate Saline Soil	• To know the growth and yield performance of four varieties of okra under slightly to moderately saline soil • To increase cropping intensity in saline area	SMRC, Batiaghata, Khulna.
9	Study on the Yield Performance of Three Varieties of Bitter Gourd	• To screen out suitable variety of bitter gourd in coastal saline soil. • To increase cropping intensity	SMRC, Batiaghata, Khulna.
10	Effect of Pitcher Irrigation on Yield of Sweet Gourd under Slightly to Moderately Saline Soil	• To study the effect of pitcher irrigation on yield of sweet gourd under slightly saline to moderately saline soil • To know the effect of pitcher irrigation on soil salinity	SMRC, Batiaghata, Khulna.
11	Effect of Mulch at Different Places of Pit on Soil Salinity and Yield of Sweet Gourd.	• To study the effect of mulching (rice straw) at different places of the pit on soil salinity • To observe the yield performance of sweet gourd using mulch at different places of pit	SMRC, Batiaghata, Khulna.
12	Study on Yield Performance of Snake Gourd under Ridge and Furrow Method on Medium High land in Coastal Saline Soil	• To produce vegetable on medium high land without risk of sudden rainfall. • Produce vegetable through reducing soil salinity	SMRC, Batiaghata, Khulna.
13	Study on the Yield Performance of Sunflower and Sweet Gourd under Intercropping System	• To increase cropping intensity in coastal area • To reduce sunflower damage lose by sudden strong wind through intercropping	SMRC, Batiaghata, Khulna.
14	Yield Performance of Indian Spinach in Slightly to Moderately Coastal Saline Soil	• To study the yield performance of Indian spinach in slightly to moderately saline soil • To increase cropping intensity in saline area	SMRC, Batiaghata, Khulna and Chandgar, Dumuria, Khulna.
15	Study on Salt Accumulation as Affected by Using Different Strength of Saline Water	• To know the effect of saline water in concern to salt accumulation in soil • To know the rate of salt accumulation in different layer of soil	SMRC, Batiaghata, Khulna.
16	Effect of Mulch on Soil Salinity and Yield of Rib Gourd in slightly to Moderately Coastal Saline Soil	To effect of mulch on soil salinity and yield of rib gourd in slightly to moderately coastal saline soil	SMRC, Batiaghata, Khulna.

BANGLADESH TEA RESEARCH INSTITUTE

BANGLADESH TEA RESEARCH INSTITUTE

SOIL SCIENCE DIVISION

Sl No.	Title of the Experiment	Objective(s)	Location
Improvement of Soil Properties for Sustainable Production			
1	Studies on performance of organic matter status on different level in reducing chemical fertilizer use in tea.	To reduce the chemical fertilizer use and to improve the soil health by using organic matter	BTRI main farm, Srimangal
2	Necessity of rehabilitation of old tea soil before replanting and its effect on growth and yield of soil (collaborative with Agronomy division).	To observe the growth and development of tea plants in the rehabilitated and non-rehabilitated soil	BTRI main farm, Srimangal
3	Effect of vermicompost on soil properties vis-à-vis the growth and yield of young tea	To evaluate the efficiency of vermicompost on tea production	BTRI main farm, Srimangal
4	Studies on physical and biological properties and the yield of tea using chemical fertilizer, organic compost & vermicompost.	To improve physical & biological properties of tea soil	BTRI main farm, Srimangal
5	Studies on upgrading the present fertilizer recommendation.	To find out the optimum dose of NPKS and micronutrients for maximizing yield	BTRI main farm, Srimangal
6	Effect of single fertilizer dose on the yield of mature tea	To estimate the effect of single fertilizer dose on the yield of mature tea	BTRI main farm, Srimangal

BOTANY DIVISION

Preliminary Selection of Vegetative Clones			
7	Selection of Vegetative Clones at Shumshernuggar T.E. Sections-Main Division-9 & Doublecherra-13	To isolate desirable mother bushes from the existing variable seedling population	Shumsher Nugar T. E.
8	Selection of Vegetative Clones at Amo T.E., Section No.8	To isolate desirable mother bushes from the existing variable seedling population	Amo T. E
9	Selection of Vegetative Clones at Baraoorah T.E. Section No. 8	To isolate desirable mother bushes from the existing variable seedling population	Baraoorah T. E.
Long Term Yield and Quality Trial of Provisionally Selected Clones			
10	Yield and Quality Trial of Test Clones Selected from Shumshernugger	To select and identify promising test clones having desirable characteristics i.e. either yield or quality or both	BTRI main farm, Srimangal

Sl No.	Title of the Experiment	Objective(s)	Location
	and Amo T.Es.; Test Clones Sh/D/11/313, A/8/8, A/17/7 & A/22/39 against Control BT1.		
11	Yield and Quality Trial of Test Clones Selected from Amo T.E.; Test Clones A/8/1, A/17/22, A/22/27 and A/22/40 against Control BT1.	To select and identify promising test clones having desirable characteristics i.e. either yield or quality or both	BTRI main farm, Srimangal
12	Yield and Quality Trial of Test Clones Selected from Chandpore, Shumshernugger and Amo T.Es.; Test Clones C/J1/10, Sh/B/6/59, Sh/B/6/62 and A/8/24 against Control BT2.	To select and identify promising test clones having desirable characteristics i.e. either yield or quality or both	BTRI main farm, Srimangal
13	Yield and Quality Trial of Four Test Clones Selected from Shumshernugger T.E.; Test Clones Sh/B/6/36, Sh/B/6/38, Sh/B/6/55 and Sh/B/6/67 against Standard BT1.	To select and identify promising test clones having desirable characteristics i.e. either yield or quality or both	BTRI main farm, Srimangal
14	Yield and Quality Trial of Six Test Clones– MZ/39, E/4, D/13, B2T1, BR2/97 and SDL/1 against Standard BT2.	To select and identify promising test clones having desirable characteristics i.e. either yield or quality or both	BTRI main farm, Srimangal
15	Yield and Quality Trial of Four Test Clones Selected from Amo T.E.; Test Clones – A/8/37, A/8/55, A/8/62 and A/8/66 against Standard BT2.	To select and identify promising test clones having desirable characteristics i.e. either yield or quality or both	BTRI main farm, Srimangal
16	Yield and Quality Trial of Four Test Clones Selected from Phulcherra, Amo and Shumshernugger T.Es.; Test Clones – A/17/16, Ph/9/1, Ph/9/9 and Sh/B/6/46 against Standard BT1.	To select and identify promising test clones having desirable characteristics i.e. either yield or quality or both	BTRI main farm, Srimangal
17	Yield and Quality Trial of Four Test Clones Selected from Phulcherra and Hybrid	To select and identify promising test clones having desirable characteristics i.e. either yield or quality or both	BTRI main farm, Srimangal

Sl No.	Title of the Experiment	Objective(s)	Location
	Progeny; Test Clones – Ph/9/4, Ph/9/25, Ph/9/40 and BS/67 against Standard BT5.		
18	Yield and Quality Trial of Four Test Clones Selected from Amo and Phulcherra T.Es.; Test Clones–A/8/B1, Ph/9/B1, Ph/9/11 and against Standard BT1.	To select and identify promising test clones having desirable characteristics i.e. either yield or quality or both	BTRI main farm, Srimangal
19	Yield and Quality Trial of Three Test Clones Selected from Amo, Phulcherra and Shumshernugger T.Es.; Test Clones–A/8/61, Ph/9/68A, Sh/D/11/18 (retrial from Expt. B2-26) and One Introduce Clone SC/12/28 against Standard BT2.	To select and identify promising test clones having desirable characteristics i.e. either yield or quality or both	BTRI main farm, Srimangal
20	Yield and Quality Trial of Four Test Clones Selected from BTRI Farm (Dulia Section); Test Clones–D1/8, D/6, D/10 and D/12 against Standard BT5.	To select and identify promising test clones having desirable characteristics i.e. either yield or quality or both	BTRI main farm, Srimangal
21	Yield and Quality Trial of Four Test Clones Selected from Phulcherra T.E. and BTRI Germplasm Bank; Test Clones–Ph/9/92, BS/3, Ph/9/108 and G/68/8 against Standard BT15.	To select and identify promising test clones having desirable characteristics i.e. either yield or quality or both	BTRI main farm, Srimangal
22	Yield and Quality Trial of Four Test Clones Selected from Shumshernugger and Amo T. Es. Test Clones–A/8/124, Sh/10/2, A/8/125 and A/11/38 against Standard BT16.	To select and identify promising test clones having desirable characteristics i.e. either yield or quality or both	BTRI main farm, Srimangal
23	Yield and Quality Trial of Four Test Clones Selected from Shumshernugger and Amo T. Es. Test Clones–A/8/128,	To select and identify promising test clones having desirable characteristics i.e. either yield or quality or both	BTRI main farm, Srimangal

Sl No.	Title of the Experiment	Objective(s)	Location
	Sh/D/13/4, Sh/10/5, BS/91/6, against Standard BT2.		
Breeding of Tea			
24	Controlled Pollination between Selected Clones/ Agrotypes and Selection of Generative Clones for the Establishment of Clonal Seed Reserve.	To improve the quantity and quality of the end product (A combination of yield and quality should be the aim)	BTRI main farm, Srimangal
25	Establishment of a Biclonal Seedbarie with Clones TV18 and BT3	To improve the quantity and quality of the end product (A combination of yield and quality should be the aim)	BTRI main farm, Srimangal
26	Comparative Yield and quality Trial of BTRI Released Biclonal Stock BTS1, Biclonal Stock T18B3, Allynugger Polyclonal Stock (ANPS), Phulbari General Seed Stock (PBS) and Clone BT1.	To improve the quantity and quality of the end product (A combination of yield and quality should be the aim)	BTRI main farm, Srimangal
27	Comparative Trial of 4 Biclonal Seed Stocks (BTS1, BTS3, TV18×BT3 & TS463) and 3 Parental Clones (BT1, TV1 & TV19).	To improve the quantity and quality of the end product (A combination of yield and quality should be the aim)	BTRI main farm, Srimangal
28	Survey and Conservation of Gene Resources of Tea in Bangladesh.	To improve the quantity and quality of the end product (A combination of yield and quality should be the aim)	BTRI main farm, Srimangal

AGRONOMY DIVISION

Standardization of Cultural Practices			
29	Effects of different doses of fertilizers and manures in pit on growth anddevelopment of clonal tea	Standardization of fertilizers on growth, development and establishment of newly planted clonal tea	BTRI main farm, Srimangal
30	Effect of different time of pruning on the monthly crop distribution in a mature clonal tea	To observe the effect of different pruning time on growth and yield of tea	BTRI main farm, Srimangal
31	Effect of a growth promoter (e.g. Biokad) on yield and yield components of tea	To know the effect of Biokad on yield parameters e.g. shoot extension rate, shoot weight and shoot density	BTRI main farm, Srimangal

Sl No.	Title of the Experiment	Objective(s)	Location
32	Effect of different intervals of irrigation on growth and development of young tea after its plantation	Standardization of amount and interval of irrigation on growth, development and establishment of newly planted clonal tea during the dry period of the year	BTRI main farm, Srimangal
33	Effect of different pruning cycles on the yield of different mature clonal tea.	To find out appropriate pruning cycle for the specific clone	BTRI main farm, Srimangal
34	Management of shade plant canopy for sustainable tea production in Bangladesh.	To find out suitable shade canopy management practices for higher yield of tea	BTRI main farm, Srimangal
Development of Soil Fertility			
35	Necessity or ehabilitation of old tea soil for replanting and its effect on the growth and yield of tea	To observe the growth and development of tea plants in the rehabilitated and non-rehabilitated soil	BTRI main farm, Srimangal

ENTOMOLOGY DIVISION

Entomological Research on Clonal Varieties of Tea			
36	*In vitro* and *in vivo* screening of tea clones at nursery level during clonal selection stage fornematode susceptibility.	To identify resistance/ susceptibility of a particular clone to nematode	BTRI main farm, Srimangal
37	Susceptibility of red spider mite to different agro types and clones.	To identify resistance/ susceptibility of a particular tea agro types/ clone to Red spider mite	BTRI main farm, Srimangal
Studies on Indigenous Plant Extracts			
38	Evaluation of some indigenous plant extracts against *Helopeltis*, Red spider mites and Nematodes.	To determine toxic effect of tested plants against major tea pests	BTRI main farm, Srimangal
Pest Infestation and Quality of Tea			
39	Studies on the biochemical changes in tea leaves and made tea due to pest infestation.	To observe the changes in the biochemical constituents of tea leave as well as made tea due to mite infestation	BTRI main farm, Srimangal
Bio-Control of Pests			
40	Searching and identification of bio-control agents for the control of pests of tea.	To find out the natural enemies in the tea ecosystem as biocontrol agents for the control of pests of tea	BTRI main farm, Srimangal

Sl No.	Title of the Experiment	Objective(s)	Location
41	Bioefficacy of Entomopathogenic fungi against major pests of tea.	To evaluate the bio-efficacy of commercial formulation of some entomopathogenic fungi against the major pests of tea	BTRI main farm, Srimangal
Screening of Pesticides			
42	Screening of pesticides against major pests of tea.	To find out a range of alternate and economical pesticides to avoid resistance, resurgence and secondary outbreak of pest.	BTRI main farm, Srimangal
43	Determination of judicious use of pesticides for a model tea estate.	To determine the judicious use of pesticides for a model tea estate	BTRI main farm, Srimangal
Pesticide Residue Analysis			
44	Determination of pesticide residue in made tea of different tea agro-types.	To determine the pesticide residue in made tea of different tea agro types	BTRI main farm, Srimangal

PLANT PATHOLOGY DIVISION

Disease Management			
45	Evaluation of antifungal activities of some plant extracts against different foliar diseases of Tea.	To evaluate and determine the effectiveness of different plant extracts against pathogens of different foliar diseases of tea	BTRI main farm, Srimangal
46	Screening of new fungicides and herbicides against different diseases and weeds in tea.	To standardize new fungicides and herbicides supplied by different companies through PTASC against tea diseases and weeds by conducting trials both in field and laboratory	BTRI main farm, Srimangal
47	Changes on quality of made tea due to growth of microbes on graded CTC black tea during storage.	To quantity the changes in quality due to growth of microbes on graded CTC black tea during storage period from the day of manufacturing to 360 days	BTRI main farm, Srimangal
48	Studies on quality of tea due to different disease infestation in tea plantation.	To find out the changes in quality of made tea due to different disease infestation	BTRI main farm, Srimangal
Weed Management			
49	Determination of critical period of weed competition in young tea.	To assess the effect of weed competition for different durations in tea	BTRI main farm, Srimangal
50	Weed management in tea with BecAno 500 SC.	To evaluate and determine the effectiveness of BecAno 500SC for economically weed control	BTRI main farm, Srimangal
51	Allelopathic effect of *Mimosa invisa* on weeds control in tea.	To ascertain the allelopathic effect of *Mimosa invisa* on weeds control in tea	BTRI main farm, Srimangal

Sl No.	Title of the Experiment	Objective(s)	Location
Arbuscular Mycorrhizal Fungi in Tea			
52	Inoculum Production of AM Fungi for Tea Plantation.	To produce mass inoculum for tea by using suitable host plants, which are produced a high number of AM propagules	BTRI main farm, Srimangal

BIOCHEMISTRY DIVISION

Tea Quality			
53	Study on the changes of the biochemical components of black tea during storage.	To observe the effect of storage time & conditions on the biochemical parameters of tea	BTRI main farm, Srimangal

TECHNOLOGY DIVISION

Tea Processing			
54	Study on the changes of the biochemical components of black tea during storage.	To observe the effect of storage time & conditions on the biochemical parameters of tea	BTRI main farm, Srimangal
55	Effect of heat in the withering trough on the quality of tea.	To compare the quality of made tea with and without use of heat in the withering trough.	BTRI main farm, Srimangal
56	Study the effect of different physical leaf composition on the tea quality and its grade percentage	Find out the quality of made tea according to plucking variation	BTRI main farm, Srimangal
57	Determination of made Tea quality at different at different temperature of CTC Rollers.	Find out the quality of made tea according to temperature variation of CTC roller	BTRI main farm, Srimangal

BANGLADESH FOREST RESEARCH INSTITUTE

BANGLADESH FOREST RESEARCH INSTITUTE

SILVICULTURE RESEARCH DIVISION

Sl No.	Research Title	Objective(s)	Location
Plantation Techniques and Forest Management, Production of Quality Planting Materials, Biodiversity and Conservation			
1	Development of planting technique of Sal (*Shorea robusta*).	• To develop suitable planting technique of sal • To enrich the degraded sal forest through aided regeneration • To monitor the change of biodiversity of sal forest overtime after establishing the plantation	Chittagong
2	Study on the development of Oil Palm (*Elaeis guineensis)* cultivation in Bangladesh.	• To determine present status of oil palm plantation in Bangladesh • To standardize nursery raising technique and management. • To standardize plantation (spacing) and management technique of oil palm • To study the reproductive biology of oil palm in plantations of Bangladesh • To introduce and test the high yielding variety (HYV) of oil palm	Chittagong
3	Growth performance of different forest tree species in research plots.	• To assess the growth performance of different tree species in four agro ecological regions of the country • To determine the silvics of different forest tree species • To develop future quality seed sources	Chittagong
4	Large scale production of quality seedlings of important forest tree species.	• To determine age, height and root-shoot ratio of seedlings for dispatch from nursery to plantation • To provide quality seedlings to planters for successful plantation establishment • To develop linkages with planters for awerness development about quality seedling	Chittagong
5	Spacing trial of agar plantation (*Aquilaria malaccencis*).	• To determine the optimum spacing for agar plantation • To assess biomass production and effect of spacing on agar formation	Chittagong
6	Conservation of indigenous forest tree species in different agro-ecological regions of Bangladesh.	• Germplasm conservation of indigenous forest tree species in different agro ecological regions of Bangladesh • To observe their suitability in particular sites • Selection of climate change resilience forest tree species	Chittagong
7	Suitability of *Khaya anthotheca* (lambu) plantation in Bangladesh.	• To develop/standardize nursery technique of lambu • To develop suitable plantation technique of lambu • To find out survival, growth and site suitability of lambu • To observe the disease infestation, environmental effect, etc. if any in the plantation	Chittagong

Sl No.	Research Title	Objective(s)	Location
Silviculture Genetics			
Bamboo and Non-Timber Economic Crops, Bio-diversity and Conservation, Breeding and Tree Improvement			
8	Mass propagation of bamboos *(Dendrocalamusgiganteus, D. longispathus, B. balcooa, B. vulgaris, B. bambos, B. cacharensis, B. multiplex,* and *D. brandisii)* through branch cuttings and seedlings proliferation	• To make available bamboo prop gules for wider distribution and dissemination with developed technology • To develop linkage with different stakeholders	Chittagong
9	Conservation of threatened plant species through domestication	• To conserve and centralize the gene resources of threatened forest plant species • To domesticate the threatened species for conservation • To raise demonstration and resource plots for conservation purpose	Chittagong
10	Development of tissue culture techniques for different bamboo species viz., farua (*Bambusa polymorpha*), budum (*Dendrocalamus giganteus*), china bamboo (*D. latiflorus),* wappi (*Thyrsostachys sp.)* and pencha (*D. hamiltonii*)	• To develop micro-propagation techniques for the species. • To produce a homogenous plant population. • To conserve i*n vitro* plants	Chittagong
11	Development of tissue culture techniques for 1) Timber trees: boilam(*Anisoptera scaphula*), tamal (*Diospyros montana*). 2) Medicinal plant: amloki (*Phyllanthus emblica*) and 3) Fruit tree: lotkon(*Baccaurea sapida*)	• To develop micro-propagation techniques for the species • To produce a homogenous plant population • To conserve i*n vitro* plants	Chittagong
Seed Orchard			
Breeding and Tree improvement, Production of Quality Planting Materials			
12	Selection of plus trees of important agroforestry and forest tree species	• To establish sources of superior quality seeds from selected clones or progenies. • To obtain best possible gains from the breeding programmes by testing progenies/clones of the selected plus trees (PTs). • To popularize superior quality seeds produced in seed orchards and providing among the planters.	Chittagong
13	Establishment and management of seed	• To establish and manage superior quality seed sources from selected clones or progenies	Chittagong

Sl No.	Research Title	Objective(s)	Location
	orchards	• To preserve better genetic stocks under ex situ condition from the natural stands and plantations for future breeding and tree improvement programme • To develop suitable techniques for mass production of clonal planting materials • To screen best clones/progenies • To supply quality seeds to FD, NGOs, DNMSs and planters	
14	Superior stands/ woodlots selection and conversion into Seed Production Area (SPA).	• To develop an interim source of seeds • To ensure supply of better quality seeds	Chittagong
15	Popularizing quality seeds and planting materials	• To develop awareness about the importance and benefits of using quality seeds and seedlings • To create quality seeds and seedlings	Chittagong
16	Testing of seeds before distribution and standardization of seed storage behaviour	• To develop a unified system of seed collection, storage, export, import, testing and distribution of forest tree seeds • To ensure the supply of quality seeds to the planters • To strengthen the BFRI seed testing laboratory.	Chittagong
17	Centralization of high yielding clones of rubber (*Hevea brasiliensis*) and establishment of orchard	• To increase the productivity of latex by selecting better yielding rubber plant/ clone • Centralization of high yielding clones in hedge orchard	Chittagong
Forest Botany			
Biodiversity and Conservation, Post Harvest Utilization- Physical Processing			
18	Floristic composition and restoration of village common forest of Kapru Para,Bandarban Hill District.	• To assess the qualitative and quantitative floristic composition of common village forest of Kapru Para • To motivate the local people for restoration of the village common forest	Chittagong
19	Studies on ethno-botanical plants used by the Chakma communities of Rangamati and Khagrachari Hill District	• To collect the ethno-botanical plants and their information used by the Chakma tribe of Rangamati Hill District • To find out conservation strategy and to develop data base for ethno medicinal plants	Chittagong
20	Anatomical properties of lambu (*Khaya anthotheca)* tree grown in Bangladesh	• To determine the detail gross and minute anatomical features of the species grown in Bangladesh. • To develop a database on anatomical properties of this species for determining better utilization	Chittagong

Sl No.	Research Title	Objective(s)	Location
Forest Inventory			
Forest Inventory, Growth and Yield			
21	Growth and yield assessment of akashmoni (*Acacia auriculiformis*) and mahogany (*Swietenia macrophylla*) through establishment of permanent sample plots (PSPs).	• To generate information on growth and yield of these species grown in plantations forest of Bangladesh • Setting physical rotation of these species	Chittagong
22	Growth and yield assessment of keora (*Sonneratia apetala*) and baen (*Avicennia officinalis*.) in the coastal plantations of Bangladesh.	• To generate information on growth and yield of the keora and baen in the coastal plantations of Bangladesh • Setting physical rotation of the species.	Chittagong
Forest Economics			
Forest Inventory and Economics			
23	Determination of financial rotation of babla (*Acacia nilotica*) plantations in Bangladesh	To determine the financial rotation of babla (Acacia nilotica) based on its the existing utilization	Chittagong
24	Impact of the Coastal afforestation of Bangladesh in respect of financial and socioeconomic conditions of local people	• To find out production system through intercropping of seasonal and/or annual crop in the forest floor of afforestation areas • To assess income generation of local people. • To make financial analysis of afforestation in Coastal zone. • To estimate the sequestrated carbon in the selected years of plantations of Coastal Afforestation	Chittagong

SOIL SCIENCE DIVISION

Plantation Technique and Forest Management, Soil Conservation and Watershed Management, Soil conservation and Watershed Management			
25	Effect of integrated soil fertility management in rubber plantation at Dantmara Rubber Estate, Fatikchari, Chittagong	• To utilize litter fall of rubber trees as organic compost • To assess the effect of compost on growth and latex production in new and mature rubber plantation • To evaluate the role of different nitrogen fixing crops in new rubber plantation	Chittagong
26	Assessment of carbon storage trends in the soil-plant system in different forest areas	• To determine carbon storage of different forest tree species and adjacent soil • To assess the correlation between soil and plant system on carbon storage trends	Chittagong
27	Effect of using preservative treated	• To monitor the changes in soil properties for using preservative treated bamboo materials	Chittagong

Sl No.	Research Title	Objective(s)	Location
	bamboo materials on soil properties and production of betel leaf in betel leaf cultivation	in betel leaf cultivation • To assess the yield and quality of betel leaf in the betel leaf farms	

MINOR FOREST PRODUCTS DIVISION

Bamboo and Non-timber Economic Crops, Biodiversity and Conservation			
28	Nursery, plantation and management techniques of ten rattan species of Bangladesh.	• To develop suitable techniques for production of quality planting materials of ten rattan species, jali (Calamus tenuis), kerak (C. viminalis), golla (Daemonorops jenkinsiana), udum (Calamus longisetus), bhudum (C. latifolius), noli (C. travencoricus), gouri *(C. acanthospathus*), sundi (*C. guruba*), sita (C. erectus) and maphuri (C. gracilis). • To develop appropriate plantation techniques and site suitability of ten rattan species. • To determine the optimum harvesting age and sound management system for maintaining sustainable production of different rattan species • To develop a gene pool and conserve rattan species available in Bangladesh for scientific study and demonstrations • To distribute quality planting materials of different rattan species to the interested government/non-government organization and private planters	Chittagong
29	Nursery and plantation techniques of five selected medicinal plants: iswarmul *(Aristolochia indica*), kurchi (*Holarrhena pubescence*), gajpipul (*Scindapsus officinalis*) antamul (*Tylophora indica)* and chandan (*Santalum album*.)	• To develop nursery techniques for production of planting materials • To develop plantation and management techniques for sustained yield • To popularize cultivation and use of those medicinal plants	Chittagong
30	Germplasm conservation and management practices of different medicinal plants.	• To authenticate correct identification of medicinal plants • To conserve medicinal plants for scientific study and demonstration • To develop a gene pool of medicinal plants species for propagation purposes. • To popularize cultivation and use of medicinal plants • To determine management techniques for maximum yield of medicinal plants	Chittagong
31	Nursery and plantation technique of dhup (*Canarium resiniferum*).	• To observe the phonological character of dhup • To standardize nursery techniques of dhup • To develop plantation techniques of dhup	Chittagong

Sl No.	Research Title	Objective(s)	Location
32	Studies on ethnomedicinal plants used by the *Khasia* community of Moulvibazar district	• To collect the ethnomedicinal plants and their information used by the Khasia community of Moulvibazar district. • To find out the conservation strategy and to develop database for ethnomedicinal plants	Chittagong
Mangrove Silviculture			
Breeding and Tree Improvement, Biodiversity and Conservation, Plantation Technique and Forest Management,			
33	Vegetation dynamics and regeneration pattern in relation to salinity and siltation of the Sundarban.	• To determine the species composition. • To determine the natural regeneration status of major mangrove species • To understand the vegetation dynamics in the Sundarban over time • To assess the impact of salinity and siltation on the change of vegetation	Khulna
34	Centralization and conservation of mangrove vegetation in three salinity zones of the Sundarban.	• To conserve mangrove species in their natural habitat • To centralize threatened mangrove species. • To observe the flora-fauna interaction over time • To demonstrate flora and fauna in natural habitat in the Sundarban	Khulna
35	Growth performance of mangrove and non-mangrove experimental plantations in theSundarban.	To determine the growth performance of mangrove and non-mangrove experimental plantations in the Sundarban	Khulna
36	Development of a mangrove museum.	• To collect and preserve the representative specimens of flora and fauna from the Sundarban. • To demonstrate the specimens of flora and fauna to the students, teachers, researchers and visitors	Khulna
37	Development of nursery and plantation techniques of Khalshi (*Aegiceras corniculatum*) in the coastal zone ofBangladesh.	To develop nursery and plantation techniques of Khalshi.	Khulna
38	Selection and development of the top dying tolerant sundri (*Heritiera fomes*) trees in the Sundarban	To develop a pure line of top dying tolerant sundri trees	Khulna

Sl No.	Research Title	Objective(s)	Location
Forest Protection			
Forest Pests and Diseases			
39	Major pests and diseases of commercially important medicinal plants and their management	• To identify pests and pathogens of commercially important medicinal plants • To determine the nature and extent of damage by each pest and pathogen • To know the biology and ecology of key pests and pathogens • To develop/adapt suitable management techniques for key pests/pathogens	Chittagong
40	Major pests and diseases of forest seeds and their manage	• To identify pests and pathogens of forest seeds in the field and storage condition. • To determine the nature and extent of damage by each pest and pathogen. • To develop suitable management techniques for key pests and pathogens	Chittagong
41	Pests and diseases of bamboos in Bangladesh and its management	• To survey and asses the present status of pest and disease infestation in bamboos from different areas of the country • To collect & identify major pests and pathogens of bamboos • To study nature and extent of damage by pest and pathogens • To study the biology & ecology of the causal agent(s) • To develop suitable management techniques for controlling pest and disease	Chittagong

PLANTATION TRIAL UNIT DIVISION

Plantation Technique and Forest management, Conservation of Biodiversity			
42	Introduction of bamboo, rattan and golpata in the coastal homesteads of Bangladesh (2nd Phase)	• To investigate the possibility for introduction of bamboo rattan and golpata in coastal homesteads of Bangladesh • To select site suitability of bamboo, rattan and golpata in the coastal areas • To increase the productivity of bamboo, rattan and golpata in the coastal areas	Barisal
43	Introduction of major bee foraging mangrove plant species in the coastal belts of Bangladesh	• To develop better silvicultural techniques for plantations for each bee foraging mangrove plant species • To provide the sources of honey plants.	Barisal
44	Development of model vegetation to protect soil erosion, salt spray and other climatic changes in the coastal belt of Bangladesh	• To develop a better model plantation of suitable species against major climatic changes in the coastal belt of Bangladesh • To select mangrove species that can tolerate cyclonic and salt hazard • To increase the coastal forest product	Barisal

Sl No.	Research Title	Objective(s)	Location
45	Ecological succession in the man-made coastal forests in relation to age and other related factors.	• To observe the changes of vegetation and natural regeneration in the coastal man-made forests • To determine the impact of related climatic factors, which are responsible for the ecological succession in the coastal forests • To increase coastal forest resources of the country	Barisal
46	Monitoring and maintenance of existing trial plantations in the coastal areas of Bangladesh.	• To assess the growth performance and phenology of different mangrove and non-mangrove species at different char lands. • To develop future seed sources for sustainable coastal forest management	Barisal
47	Selection of salt tolerant fruit and medicinal tree species in the coastal areas of Bangladesh.	• To select suitable salt tolerant fruit and medicinal tree species in the coastal areas of Bangladesh • To observe the growth performance of different fruit and medicinal tree species in different sites. • To assess the production of fruits in different fruit tree species	Barisal
Wild Life Section			
Plantation Technique and Forest Management			
48	Biodiversity and conservation	Development and maintenance of wildlife museum	Chittagong
49	Present status of Phayre's leaf monkey (*Trachypithecus phayrei*), Pig-tailed macaque (*Macaca nemestrina*) and Capped leaf monkey (*Trachypithecus pileatus*) in hill forest of Bangladesh	To evaluate the distributions and population of the non human primate species in hill forest of Bangladesh for sustainable conservation	Chittagong
50	Status of Wildlife in Baraiyadhala National Park	• Establishment of Sampling Transects based on Google earth map of the site and field visit • To evaluate the status of wildlife population in Baraiyadhala National Park.	Chittagong
Forest Chemistry			
Post Harvest Utilization –Chemical Processing			
51	Extraction of agar (*Aquilariamalaccensis* Lam.) oil from artificial inoculated agar trees	• Todetermine suitable artificial inoculation method for formation of agar • To evaluate the effect of wounding density in formation of oil in agar trees • To assess the site and location factors on the yield and quality of agar	Chittagong
52	Chemical characterization of wood and bamboo species for various end uses	• To evaluate chemical properties of different wood and bamboo species.	Chittagong

Sl No.	Research Title	Objective(s)	Location
53	Artificial Inoculation of Agarwood (*Aquilariamalaccensis* Lam.) by Chemical Inducing Agent(s).	• To explore an efficient and suitable chemical inducing agent(s) for the artificial inoculation of agar tree • To develop and optimize the inoculation technique for the best formation of agar resins • To investigate the origin or process of agar resin deposition	Chittagong
54	Phytochemical analysis and antioxidant potential of some indigenous medicinal plants.	• To qualitative estimation of phytochemicals in medicinal plants. • To determine the antioxidant potential for assessment their efficacy.	Chittagong

SEASONING AND TIMBER PHYSICS DIVISION

Post Harvesting Utilization-Physical Processing			
55	Studies on solar kiln for efficient seasoning of different thicknesses of wood	To determine the seasoning characteristics of different thicknesses of wood	Chittagong
56	Dissemination of solar kiln technology to the stakeholders for efficient seasoning of wood.	To disseminate solar kiln technology to the wood traders, furniture makers and wood based cottage industries	Chittagong
57	Studies on physical and mechanical properties of palmyra palm (*Borassus flabellifer*) wood	To assess the suitability of palmyra palm wood for making furniture and construction materials	Chittagong
Pulp and Paper			
Post Harvest Utilization –Chemical Processing			
58	Production of high yield pulp from bagasse, wastes of sugar mill of Bangladesh	To improve pulping process for the production of high yield pulp	Chittagong
59	Oxygen delignification of kraft pulp of stem and branches of rubber tree (*Hevea brasiliensis*)	To investigate the bleaching response of rubber pulp for using as high quality paper	Chittagong
60	Production of nano composite from fibers of *Acacia* hybrid and simul (*Bombaxceiba*) tree species of Bangladesh	• To develop modern technique for extraction of nano cellulose from wood pulp • To produce ethanol and environment friendly packaging materials	Chittagong
61	Suitability of *Acacia* hybrid for making hardboard	To investigate the suitability of Acacia hybrid for making hardboard	Chittagong

Sl No.	Research Title	Objective(s)	Location
Veneer and Composite Wood Products			
Post Harvesting Utilization-Physical Processing			
62	Design and fabrication of furniture using bamboo composites	• To assess the potential of bamboo composites for making quality furniture. • To assess economic feasibility of commercially valuable furniture made of bamboo composites	Chittagong
63	Particleboard made of rubber wood *(Hevea braziliensis*), gol pata (*Nipa fruticans*) and raj kori wood (*Albizia richardiana*).	• To determine the suitability of making particleboard in mixed wood species	Chittagong
64	Development of doors and partition using bamboo composite products	• To assess the potential of bamboo composites for making doors and partition • To assess economic feasibility of doors and partition made of bamboo composites • To disseminate the information to the end-users	Chittagong
65	Suitability of manufacturing medium density fiberboard (MDF) from stem and branches of rubber wood *(Hevea braziliensis*).	• To determines the suitability of medium density fiberboard (MDF) made from stem and branches of rubber wood (Hevea braziliensis)	Chittagong

WOOD WORKING AND TIMBER ENGINEERING DIVISION

Post Harvesting Utilization-Physical Processing			
66	Potential uses of treated round bamboo for making quality furniture.	• To establish round bamboo as a quality furniture material after preservative treatment • To improve the design and quality of bamboo furniture • To increase the uses of bamboo for making furniture as an alternative of timber	Chittagong
67	Improvement of sawing technique of different wood species for maximum yield	• To determine the cause of timber loss during sawing • To maximize the yields of timber by applying improved sawing techniques	Chittagong

WOOD PRESERVATION DIVISION

Post Harvest Utilization-Chemical Processing			
68	Investigation of preservative chemicals leaching from treated materials in water and soil	• To investigate the water and soil contamination due to preservative treatment • To disseminate the information to the end-users	Chittagong

Sl No.	Research Title	Objective(s)	Location
69	Treatability and natural durability of bhudum (Dendrocalamus giganteus) bamboo species.	• To develop treating schedule for preservative treatment • To determine outdoor service life of bamboo species treated with CCB preservative • To disseminate the information to the end-users	Chittagong
70	Extension of preservation treatment technology to the end-users.	• To motivate people through training, group discussions, personal contacts etc • To provide technical support to the business initiators for development of entrepreneurship in preservative treatment	Chittagong
71	Assessment of durability of different bamboo species under different duration of water treatment	• To assess the durability of bamboo after immersion under water • To determine indoor service life of bamboo products after water treatment	Chittagong
72	Performance of Neem (Azadirachta indica A.Juss) leaves and Mehagani (Afzelia Sm) seeds extract as an eco-friendly wood preservative.	• To develop environmental friendly wood preservatives • To investigate the effect of wood preservatives on wood against the wood decay agents	Chittagong

COTTON DEVELOPMENT BOARD

COTTON DEVELOPMENT BOARD

Sl No.	Research Title	Objectives (in short)	Location
1	Rejuvenation and Evaluation of Cotton Germplasm	To multiply the germplasm and to identify some better genotypes	Mahigonj, Rangpur
2	Collection, Characterization and Conservation of Cotton Germplasm	To know the qualitative and quantitative characters of the collected germplasm for future use	Mahigonj, Rangpur
3	Hybridization of Upland Cotton	To assemble and necessary creation of sufficient variability through hybridization and to developed a desire cotton variety	Mahigonj, Rangpur
4	Heterosis Test and Estimation of General and Specific Combining Ability of the Crossed Genotypes	To test the yield and quality performance of the crossed materials through comparing their agronomic and ginning characters with the parents	Mahigonj, Rangpur
5	Non-Replicated Progeny Row Trial of Upland cotton	To select the superior genotypes for new acquisition trials	Mahigonj, Rangpur
6	Replicated Progeny Row Trial (Evaluation of Genotypes) of Upland Cotton (*Gossypium hirsutum L*)	To select the superior genotypes for new acquisition trials	Mahigonj, Rangpur
7	Preliminary Yield Trial of Upland Cotton (Gossypium hirsutum L)	To test the yield and quality performance of some newly promising lines through comparing their agronomic and ginning characters with existing standard cultivars	Rangpur, Dinajpur, Jessore & Gazipur
8	Advance yield trial of Upland Cotton *(Gossypium hirsutum L)*	To compare the agronomic, ginning and quality performance of some advanced lines with superior existing cultivars that currently being multiplied for release to farmers.	Rangpur, Dinajpur, Jessore & Gazipur
9	Candidatevariety Trial/Zonal Yield Trial of Upland Cotton	To test the yield and adaptability of some advanced lines with the existing cultivars at zonal level in farmers field that currently being multiplied for release to farmers	Thakurgon, Rangpur, Bogra, Rajshahi, Mymensingh, Jessore, Jhenaidha, Chuadanga, khustia and Dhaka.
10	Non-Replicated Progeny Row Trial of Upland cotton	To select the superior genotypes for new acquisition trials	Sreepur, Gazipur
11	Evaluation and Characterization of Some Materials of Upland Cotton	To select the superior genotypes for new acquisition trials	Jagodishpur, Jessore

Sl No.	Research Title	Objectives (in short)	Location
12	Estimation of Combining Ability and inbreeding depression of the Crossed Genotypes	To test the yield and quality performance of the crossed materials through comparing their agronomic and ginning characters with the parents	Sreepur, Gazipur
13	Effect of plant density with variable K rates on cotton	To evaluate the pant density and K rate in respect of yield and quality attributes of cotton	Sreepur, Sadarpur, Jagadishpur
14	Efficacy of different herbicides over manual weeding in controlling cotton weed	To select proper herbicide for controlling cotton weed	Sadarpur, Jagadishpur Sreepur,
15	Performance of Cotton varieties under Mango based Agroforestry Systems in the High Ganges River Flood Plain Ecosystem of Bangladesh	To evaluate the cotton genotypes in respect of yield and quality attributes of cotton	Rajshahi
16	Performance of seed cotton yield of some newly released cotton varieties at different levels of nutrients	To determine the effect of fertilizer level on yield and yield contributing character of newly released cotton varieties	Jagadishpur
17	Effect of various spacing on seed cotton yield so some newly released cotton varieties	To determine the effect of plant spacing on yield and yield contributing character of newly released cotton varieties	Jagadishpur
18	Effect of N P K S Fertilizer on Newly Release CottonVariety CB-13 and CB-14	To determine the appropriate fertilizer dose of newly developed cotton varieties	Sreepur, Sadarpur, Jagadishpur
19	Effect of Potassium Application on Yield and fiber Quality of Cotton	To determine the appropriate doses of Potassium fertilizer.	Sreepur, Sadarpur, Jagadishpur
20	Performance of Urea Deep Placement (UDP) on the Yield and Yield Contributing Characters of Cotton	To assess the performance of Urea Super Granules (USG) in comparison with prilled urea on cotton yield and yield attributes	Sreepur, Sadarpur, Jagadishpur
21	Effect of integrated nutrient management practices on cottonproductivity, nutrient uptake and soil fertility	To determine the combined effect of poultry manure and inorganic fertilizer on cotton yield	Sreepur, Sadarpur, Jagadishpur
22	Bio-efficacy of mixed group insecticides against sucking pest of cotton during 2014-15.	To find out the effective and friendly insecticide	Sadarpur

Sl No.	Research Title	Objectives (in short)	Location
23	Efficacy of some insecticides for the management of sucking and chewing pests of hill cotton	To reduce the sucking pests of hill cotton in early stages and also to reduce the chewing pests (Bollworm) infestation from early to boll maturing stages	Balaghata
24	Insect biodiversity in cotton fields in the Chittagong Hill Tracts	To study the nature of insect pests infesting upland cotton	Balaghata
25	Bioefficacy Evaluation Of Different Botanical Extract Against Cotton Sucking Insects	To develop bio-rational based integrated management package(s) against different sucking pest of cotton	Sreepur
26	Assessment of cotton diseases	To know the potential production risk associated with cotton diseases	Sreepur

BANGLADESH SERICULTURE RESEARCH AND TRAINING INSTITUTE

BANGLADESH SERICULTURE RESEARCH AND TRAINING INSTITUTE

BREEDING DIVISION

Sl No.	Research Title	Objectiv(s)	Location
Mulberry			
Development of High Yielding Mulberry Varieties through Breeding			
1	Collection, conservation and evolution of hybrid materials for higher leaf yield and quality.	To enriched germplasm bank.	BSRTI, Rajshahi.
2	Selection of best varieties from open pollinated hybrid (OPH) seeds.	To select best varieties through open pollinated hybrids.	
3	Selection of superior genotypes from crosses between high combining parents and superior genotypes.	To select superior genotypes through hybridization.	
4	Evolution of high yielding mutant & polyploid strain through mutation and polyploidy breeding.	To induce variation for selection of best variety through mutation and polyploidy breeding.	
5	Propagation and production of mulberry plants through tissue culture.	To develop protocol for mulberry propagation through tissue culture.	
Development of Appropriate Technology of Mulberry Cultivation for young and late age Silkworm.			
6	Identification of genotypes suitable for young and late age silkworm.	To screen out suitable mulberry varieties both for young and late age silkworm.	BSRTI, Rajshahi.
7	Development of sustainable cultivation technology both for young and late age silkworm.	To screen out suitable mulberry cultivation technology both for young and late age silkworm.	BSRTI, Rajshahi.
Development of Control Measure for Disease and Pest infestation of Mulberry			
8	Studies on fungal and nematode disease of mulberry.	To find out cost effective and eco-friendly control measure for fungal and nematode disease of mulberry plant.	BSRTI, Rajshahi.
9	Control of harmful pests in mulberry.	To find out cost effective control measure for mulberry pests.	BSRTI, Rajshahi.

Sl No.	Research Title	Objectiv(s)	Location
Seri-Chemistry			
Nutritional assessment of Mulberry Varieties Raised under different Cultivation Practices			
10	Biochemical assessment of different mulberry varieties cultivated both for young and late age silkworm.	To evaluate the nutritional quality of mulberry leaves both for young and late age silkworm.	BSRTI, Rajshahi.
11	Biochemical studies of mulberry leaves raised under multiple cropping systems.	To evaluate the nutritional quality of mulberry leaves reared under different cultivation forms.	BSRTI, Rajshahi.
Utilization of Sericultural byProducts and their Analyses.			
12	Possible uses of mulberry and silkworm other than Sericulture.	• To explore possible uses of mulberry and silkworm other than silk production. • To reduce the cost of raw silk production.	BSRTI, Rajshahi.
13	Commercial utilization of waste pupae.	• To formulate poultry feed/fish meal using waste pupae. • To reduce the cost of raw silk production	BSRTI, Rajshahi.
Silk Worm			
Development of High Yielding Silkworm Varieties through Breeding.			
14	Evolution of high yielding multivoltine silkworm breeds suitable for the climatic condition of Bangladesh.	• To evolve high yielding multivoltine silkworm breeds suitable for the climatic condition of Bangladesh. • To evolve season wise hardy multivoltine. • To enrich genetic materials for germplasm bank.	BSRTI, Rajshahi.
15	Evolution of bivoltine silkworm breeds with high silk content utilizing existing and imported bivoltine as parents.	• To evolve high yielding multivoltine silkworm breeds suitable for the climatic condition of Bangladesh. • To evolve season wise hardy bivoltine. • To enrich genetic materials for germplasm bank. • To replace the existing breeds with this nearly developed one.	
Screening of Highly Productive Combiners for preparation of Hybrids through "Line × Tester" Analysis.			
16	Breeding for high yielding poly hybrids suitable for pre and post winter rearing season of Bangladesh.	• To select suitable poly hybrids for varied agro-climatic condition of Bangladesh. • To popularize hybrids instead of pure race rearing for seed crops.	BSRTI, Rajshahi.
17	Isolation of relatively high yielding hybrids & poly hybrids suitable for adverse climatic condition (Jaistha and Bhaduri) of Bangladesh.	To select suitable poly hybrids for adverse climatic condition (Jaistha and Bhaduri) of Bangladesh.	BSRTI, Rajshahi.

Sl No.	Research Title	Objectiv(s)	Location
Silkworm Pathology			
Screening of Suitable Chemicals/disinfectants for Control of Silkworm Diseases.			
18	Screening of effective chemicals/ disinfectants against bacterial and fungal diseases of silkworm (in vitro & in vivo).	To find out effective chemicals/disinfectants for control silkworm diseases.	BSRTI, Rajshahi.
Development of control Measure against Pest infestation of Silkworm			
19	Identification of chemical/disinfectants having ovicidal effect.	To identify suitable acid, base and salt etc. having ovicidal effect.	BSRTI, Rajshahi.
20	Identification of effective repellent for uzifly control.	To select effective repellent for uzi fly control.	BSRTI, Rajshahi.
Technology			
21	Utilization of solar energy in cocoon drying and reeling	To Utilization of solar energy for cocoon drying and reeling	BSRTI, Rajshahi.
22	Comparative study of solar dryer and multi-fuel dryer on cocoon drying and reeling for quality raw silk production.	To comparative study of solar dryer and multi-fuel dryer for cocoon drying and reeling for quality raw silk production.	BSRTI, Rajshahi.
Development of Reeling Appliances for Qualitative and Quantitative Improvement of raw Silk Production			
23	Development of improved katghai and cottage basin.	To develop improved katghai and cottage basin.	BSRTI, Rajshahi.
24	Fabrication of improved thai reeling machine.	To fabricate improved thai reeling machine.	BSRTI, Rajshahi.
25	Fabrication of multiend reeling machine with re-reeling	To fabricate multiend reeling machine with re-reeling.	BSRTI, Rajshahi.

GERMPLASM MAINTENANCE CENTRE (GMC), PANCHAGARH

26	Study of Mulberry and bivoltine silkworm varieties and maintenance of Germplasm.	• To collect new genetical resources from home and abroad. • To enhance genetical materials through breeding programme.	GMC, Sakoa, Panchagarh.
27	Screening of highly productive combiners for preparation of hybrid Silkworm.	To select highly productive combiners for preparation of hybrid Silkworm.	GMC, Sakoa, Panchagarh.

Sl No.	Research Title	Objectiv(s)	Location

REGIONAL SERICULTURE RESEARCH CENTRE (RSRC), RANGAMATI

Collection and Maintenance of Germplasm for Mulberry and Non-mulberry Sericulture			
28	Collection of mulberry germplasm from home and abroad and their maintenance.	To accumulate more genotypes in germplasm bank.	RSRC, Chandraghona Rangamati.
29	Selection of suitable mulberry varieties for hilly condition.	To select suitable mulberry varieties for hilly condition.	RSRC, Chandraghona Rangamati.
30	Collection and maintenance non-mulberry host plant for silkworm rearing.	To collect and maintain non-mulberry host plants. To study the possibility of non-mulberry silk production in hilly areas.	RSRC, Chandraghona Rangamati.
31	Development of suitable cultivation system of mulberry and non-mulberry plants in the hills.	To development of suitable cultivation system of mulberry and non- mulberry plants.	RSRC, Chandraghona Rangamati.
32	Development of suitable rearing practices both for mulberry and non-mulberry silkworm rearing in the hills.	To Development of suitable rearing practices both for mulberry and non- mulberry silkworm rearing in the hills.	RSRC, Chandraghona Rangamati.
33	Development of Chawki mulberry garden and Chawki Bivoltine package in Germplasm maintenance centre.	To develop Chawki mulberry garden and Chawki Bivoltine package for hilly area.	RSRC, Chandraghona Rangamati.

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BANGLADESH FISHERIES RESEARCH INSTITUTE

BANGLADESH FISHERIES RESEARCH INSTITUTE

FRESHWATER STATION, MYMENSINGH

Sl No.	Research Title	Objective(s)	Location
Development of feeds with probiotics and optimization of feeding strategies for commercially important fish farming			
1	Optimizing dietary protein to energy ratio (P/E ratio) in *Pangasianodon hypophthalmus*	To optimize dietary protein to energy ratio (P/E ratio) for *Pangasianodon hypophthalmus*	Mymensingh
2	Evaluation of selected probiotics in the formulated diets for *Pangasianodon hypophthalmus*	To evaluate the effect of selected probiotics on growth, feed & nutrient utilization and digestibility in *Pangasianodon hypophthalmus*	Mymensingh
3	Development and optimization of feeds with probiotics in *Pangasianodon hypophthalmus* farming	To recommend the potential probiotics as feed additives in the formulated diets	Mymensingh
Genetic Studies and Stock Improvement of Commercially Important Carps			
4	Stock improvement of rohu, *Labeo rohita*, through family selection	To continue genetic stock improvement of *Labeo rohita* through family selection protocol	Mymensingh
5	Genetic Management of Improved stock of Silver barb, *Barbodes gonionotus*	To continue genetic management of improved stock of Silver barb, *Barbodes gonionotus* through selective breeding protocol	Mymensingh
Investigation and Identification of Emerging fish Diseases and Development of their Control Strategies			
6	Epidemiological investigations, isolation of Shing (*Heteropneustes fossilis*) viruses and preparation of primary cell culture	To isolate and identify Shing viruses from recent outbreaks	Mymensingh
7	Clinical, bacteriological, parasitological and histopathological study	To identify the causative agent(s) for emerging fish diseases outbreak	
8	Select suitable medicinal materials through in-vitrotest and treatment trials in aquariums as well as in mini ponds conditions	To develop control strategies to minimize fish mortality	

Sl No.	Research Title	Objective(s)	Location
a) Stock Improvement and Dissemination of Commercially Important Tilapia and Climbing Perch Koi through Genetic Selection b) Production Performance of Pabda and Gulsha in net cages in the River Brahamputra, Mymensingh			
9	Family Selection Program of BFRI-GIFT using family selection protocol	Continuation of stock improvement of BFRI-GIFT strain using family selection protocol	Mymensingh
10	Stock improvement and mass seed production of pure line of *A. testudineus* (F_5) through Brood stock replacementtechniques	Continuation of stock improvement of Thai Koi using brood stock replacement technique	Mymensingh
11	Production performance of Gulsha and Pabda in net cages at different stocking densities	To know the production performance of Pabda and Gulsha in net cages at different stocking densities	Mymensingh
a) Investigation on the Access Route of Toxic Drugs and Chemicals in Fish b) Development of Induced Breeding and Culture Techniques for Mekong Giant Catfish, (*Pangasianodon gigas*).			
12	Investigation on the Access Route of Toxic Drugs and Chemicals in Fish	• To find out the residues and accumulation level of aquadrugs and chemicals in fish, plankton and benthos • To categorize the listed drugs and chemicals on the basis of legal approval, registration and beneficial effect • To find out the routes and means that the drugs/chemicals gain access into the country and in aquaculture practices	Mymensingh
13	Development of Induced Breeding and Culture Techniques for Mekong Giant Catfish, *Pangasianodon gigas*.	• To develop induced breeding and rearing techniques of Pangasianodon gigas by studying its breeding biology and feeding behavior • Developing appropriate collection techniques and transport systems of fish milt	Mymensingh
a) Establishment of Cryo-Milt Bank for Carps and Catfishes b) Development of Aquaponic Techniques in Bangladesh.			
14	Establishment of Cryo-Milt Bank for Carps and Catfishes	• Cryo-Milt Bank for Labeo rohita and Pangasius hypophthalmus (sutchi) • Estimation of breeding success of L. rohita and P. sutchi using cryo-milt	Mymensingh
15	Development of Aquaponic Techniques in Bangladesh	• To develop aquaponic system in Bangladesh, this might help researchers, policy makers, planners, development partners and farmers to formulate guidelines for producing fish and vegetable/fruits without polluting ecosystem	Mymensingh

Sl No.	Research Title	Objective(s)	Location
Substitution of Brine & Artemia by Crude salt & live feed for Prawn (*M. rosenbergii*) seed production in Backyard Hatchery			
16	Substitution of Brine wholly or partially with the muddy crude salt from salt pan in the Backyard Golda hatchery	• Replace of brine by wholly or partially with the muddy crude salt • Decrease cost for collection of brine	Mymensingh
17	To produce quality seed of *M. rogenbergii*	• To supply quality seed of M. rogenbergii to the farmers pond • To increase production • produce quality broods	Mymensingh
Development and Dissemination of pearl culture technology			
18	Refinement of freshwater culture techniques in Bangladesh	• Determination of suitable culture techniques for maximum pearl production • Dissemination of technology through on-farm trial and training. • Refinement of image pearl culture technology	Mymensingh
Development and Dissemination of pearl culture technology			
19	Natural Propagation Of Freshwater Mussel In Bangladesh	• To identify male and female brood mussels for natural propagation • To know the reproductive behavior of freshwater mussels • To know the Natural propagation of pearl producing mussels	Mymensingh
Study on the availability of pearl producing mussels in Bangladesh			
20	Study on the availability of pearl producing mussels in Bangladesh	• To collect the freshwater mussels and to know their distribution • To categorize the collected samples according to genus and species • To identify the appropriate species for pearl culture by rearing • To know the problems and prospects of freshwater pearl culture in Bangladesh	Mymensingh
Integrated Agricultural Productivity Project (IAPP)			
21	Stock improvement of Thai Pangas (*Pangasianodon hypophthalmus*)using rotational group breeding techniques	Stock improvement of pangas through rotational group breeding techniques	Mymensingh
22	Comparative growth study of improved and existing stocks of Thai Pangas (*Pangasianodon hypophthalmus)* in farmers ponds at Kurigram district, Bangladesh	• Comparative growth study of improved & existing stocks of pangas • Quality seed production and distribution of improved breeds	

Sl No.	Research Title	Objective(s)	Location
Core Research Project			
23	Development of broods for best performed breeds of rohu, catla & mrigal collected from wild sources of Halda & Jamuna	To collect wild germplasm and evaluate growth performance within the collected wild germplasm and existing stocks.	Mymensingh
24	Comparative growth performance of rohu, catla and mrigal collected from Halda and Jamuna stocks.	To develop live gene bank with quality brood stocks through implementation of effective breeding plan.	
25	Developement of induced breeding technique of Crucian Carp, *Carassius carassius*	Quality seed production of improved breeds and disseminate to the farmers/hatchery and nursery owners/entrepreneurs	
26	Effects of stocking densities of Crucian carp under primary and secondary nursery systems	• To find out the suitable breeding technique of crucian carp • To study the suitable levels of stocking & feeding regimes of fry & fingerling rearing of crucian carp	
27	Growth study of Crucian carp under different stocking density in mono culture system	• To determine the suitable stocking density of crucian carp both in mono & polyculture systems • Field evaluation of crucian carp in farmers pond	
Development of Seed Production and Grow-out Techniques for Endangered Fish Species (*Chitala chitala, Notopterus notopterus & Monopterus cuchia*) in Bangladesh			
28	Development of broodstock management and seed production techniques of Chital, *C. chitala*	To develop broodstock management and seed production techniques of Chital, *C. chitala*	Mymensingh
29	Development of control breeding technique of *M. cuchia*	To develop control breeding technique of *M. cuchia*	Mymensingh
30	Development of nursery rearing technique for *M. cuchia*	To develop nursery rearing technique of *M. cuchia*	Mymensingh
31	Study the reproductive biology ofFoli, *N. notopterus*	To study the reproductive biology of Foli, N. notopterus	Mymensingh
32	To develop induced breeding and seed production technique of Foli, *N. notopterus*	• Development of induced • Breeding and seed production • technique of Foli, N.notopterus	Mymensingh
Testing of Local Herbal Products for Fish/Shrimp Disease Prevention and Control.			
33	Performance of various harbal solvent extracts on artificially infected pangus	To observe the activity of various solvent extracts on artificially infected pangus	Faculty of Fisheries, BAU

Sl No.	Research Title	Objective(s)	Location
34	Isolation of chemical compounds from selected herbs and their use in fish disease recovery	To isolate the chemical compounds from selected herbs and their use in fish disease recovery	Faculty of Agriculture, BAU
35	Sensitivity test of isolated compound from Kalojira seed extract.	To observe the antibacterial activity of isolated compound from Kalojira seed	Aquaculture Dept. BAU, Mymensingh
36	Performance of bioactive compound of kalojira seed on artificially infected sharputi (*Puntius sarana*)	To observe the activity of bioactive compound on artificially infected sharputi	Faculty of Fisheries, BAU
Toxicity of Diazinon 60 EC and Sumithion to *Channa punctatus* and *Heteropneustes fossilis*			
37	Study of long term effects of Sumithion on gonad and breeding performances of *H. fossilis*	To determine the effects of Sumithion on gonad and breeding performances of *H. fossilis*	Fisheries Biology and Genetics, BAU
38	Study for determining the effects of Sumithion on survival and hatching of fertilized eggs of *H. fossilis*	To determine the effects of Sumithion on survival and hatching of fertilized eggs of *H. fossilis*	Department of Fisheries Biology and Genetics, BAU
39	Comparing the survival and growth rates of larvae produced from Sumithion treated and untreated eggs of *H. fossilis*	To determine the survival and growth rates of the larvae produced from Sumithion treated eggs of *H. fossilis*	Department of Fisheries Biology and Genetics, BAU
Influence of Chemicals and Drugs on Microbial Flora used Indiscriminately in Aquaculture			
40	i) Investigation into the use and abuse of drugs in commercial aquaculture ii)Microbial diseases in commercial pangasius and examine drug sensitivity of isolated bacterial pathogens iii) Disease treatment of pangasius using selected antibiotics	• To investigate the status of use and abuse of drugs in commercial aquaculture • To investigate microbial diseases in commercial aqua-farms and examine drug sensitivity of pathogens • Use of antimicrobial drugs in microbial fish disease treatment	Fish farms at Mymensingh Fish farms at Mymensingh and laboratory at BAU Laboratory at BAU
Effect of Organophosphorus Pesticides on the Hematological Parameters, Tissues and Organs, and Reproductive System of Silver Barb and Tilapia			
41	Effects of Kinalux 25EC on hematological parameters in Tilapia	• To determine the sub-lethal and chronic toxicity of Kinalux 25EC on and their effects on some blood biochemical parameters of tilapia (*Oreochromis niloticus*).	Mymensingh

Sl No.	Research Title	Objective(s)	Location
42	Effects of Kinalux on histo-architecture of some organs in Tilapia	• To know the effect of Kinalux 25EC on various aspects of fish's biology and physiology a) Tissue (muscle) and organ (gill, b) kidney, liver) damage c) Behavioral alterations d) Reproductive dysfunction i) morphology of gonad; ii) fecundity, GSI; iii) sperm motility	Mymensingh
43	Effects of Quinalphos on genotoxicity of silver barb	• To know the effect of Quinalphos on • Genotoxicity	Mymensingh
44	Chronic effect of Quinalphos on protein and lipid content of silver barb	To know the chronic effect of Quinalphos compound on proteins and lipid content of eggs	Mymensingh

FRESHWATER SUB-STATION, SANTAHAR, BOGRA

Study on Food, Feeding Habit and Breeding Biology of Commercially Important Cuchia Species, *Monopterus cuchia*			
45	Determination of suitable dosages of hormone for induced breeding of *Monopterus cuchia*	To develop breeding techniques of *M. cuchia*	Santahar, Bogra
46	Effects of different stocking densities on growth and survival of *M. cuchia* fry in cemented cisterns	To fine tuning of nursing technique of *M. cuchia*	Santahar, Bogra
47	Grow-out culture of *M. cuchia* in cistern condition	To develop grow-out culture technique of *M. cuchia* in cisterns.	Santahar, Bogra
48	Survey on availability, marketing channel and export potentiality of *Monopterus cuchia* in study area.	To study availability, marketing channel, export and culture potentiality of *M. cuchia* in study area	Santahar, Bogra

FRESHWATER SUB-STATION, SAIDPUR, NILPHAMARI

49	Adoption of mass seed production and development of suitable culture technologies of some commercially important fish species in the North-West Bangladesh	• To develop induced breedingtechnique of tengra • Development of nursing technique of tengra • Development of culture technique of tengra • Adoption of Thai-koi, shing, GIFT and Thai-sarpunti polyculture techniques at Saidpur	Freshwater Sub-station, Saidpur, Nilphamari

Sl No.	Research Title	Objective(s)	Location
Investigation, Diagnosis, Control and Prevention of Commonly Occurring Fish Diseases in Jessore Region			
50	Trial to control of parasitic diseases (Lernaeasis) by using different drugs in field level (farmers pond)	Field trial (on station and farmers level) to control of parasitic diseases (Lernaeasis) by using different drugs	Jessore

FRESHWATER SUB-STATION, JESSORE

Evaluation of BFRI-GIFT and latest Strains of Nile Tilapia, *Oreochromisniloticus* L., under On-Station and On-Farm conditions in Bangladesh			
51	A comparison of grow-out trials of BFRI-GIFT vs latest strains of GIFT in net cages	To investigate growth and production potential of BFRI GIFT and latest strain of Nile Tilapia in different environment	Jessore

BRACKISHWATER STATION, PAIKGACHA, KHULNA

Development of technique for breeding and larval rearing of mud crab, Scylla olivacea.			
52	Impact of salinity onthe Production of berriedfemale of mudcrab, *Scylla olivacea*.	To develop brood of mud crab, *Scylla olivacea* in captivity	Paikgacha, Khulna
53	Impact of green water and different feeding regime on the development of larvae of mud crab, *Scylla olivacea.*	To develop larval rearing technique of mud crab, *S. olivacea*	
Diversification of Culture Practice for Optimizing Production of the Shrimp (*Penaeus monodon*) Culture System in the Coastal ghers.			
54	Feasibility of double cropping with short culture period for increasing production of shrimp (*Penaeus monodon*) at different stocking densities.	• To study the ecology and production feasibility of different cropping patterns in *Penaeus monodon* culture system in the coastal *ghers* • To study the impact of introduction of different fin fishes for increasing production from the coastal *ghers* • To maximize production capacity and profitability from the coastal *ghers*	Paikgacha, Khulna
Development of Breeding, Seed Production and Culture Technology of Green Back Mullet *Chelon subviridis* (Val.)			
55	Optimizing salinity level of water for breeding of green back mullet, *Chelon subviridis*.	To optimize the seed production technology of C. *subviridis*	Paikgacha, Khulna
56	Optimizing temperature level of water for breeding of *Chelon subviridis*.	To optimize the seed production technology of C. *subviridis*	Paikgacha, Khulna

Sl No.	Research Title	Objective(s)	Location
57	Determination of quality and doses of different hormones for breeding of *Chelon subviridis.*	To evaluate the efficacy of different hormones for the breeding of *C. subviridis.*	Paikgacha, Khulna
58	Evaluation of efficacy different fertilizers on the production of fry of green back mullet, *Chelonsubviridis* in nursery ponds.	To develop sustainable nursery management and culture technology of *C. subviridis*	Paikgacha, Khulna
59	Productin of green back mullet, *Chelon subviridis* in monoculture managemnt at different stocking densities.	To evaluate the economic feasibility of production of *C. subviridis*	Paikgacha, Khulna
Improvement of Management Practice for Increasing Production of Shrimp (*Penaeus monodon*) in Extensive system			
60	Assessment of culture status of shrimp *ghers* in extensive system.	To assess the ecological status of shrimp (*Penaeusmonodon*) *ghers*	Paikgacha, Khulna
61	Intervention for increasing production of shrimp in extensive system.	To improve the productivity of shrimp (*Penaeus monodon*) ghers	

MARINE FISHERIES & TECHNOLOGY STATION, COX'S BAZER

Brood Development and Seed Production of Commercially Important Marine fishes, *Mugil cephalus* and *Lates calcarifer*			
62	Domestication of wild mullet and sea bass under controlled condition for brood development	Brood rearing, reproductive biology study and breeding of mullet (*M. cephalus*) and seabass (*Lates calcarifer*) on farm level	Cox's Bazar
63	Studies on the reproductive biology and breeding trial of the mullet, *Mugil cephalus*		Cox's Bazar
Development of Culture Technique and Utilization of Seaweed			
64	Experiment on development of seaweed culture technique	Development of seaweed culture technique in Bangladesh	Cox's Bazar
65	Nutritional value and toxicity studyof seaweed	Investigate the nutritious value of seaweeds	Cox's Bazar
Improvement of Dried Fish Production System Suitable for Small Entrepreneurs and Marginal producers			
66	Improvements of large scale fish drying techniques	Development of fish drying technology for large producers	Cox's Bazar

Sl No.	Research Title	Objective(s)	Location
67	Standardization of procedure and materials for packaging to increase shelf-life of dried fish	Standardization of procedure and materials for packaging to increase shelf-life in storing and marketing of the products	Cox's Bazar
Status of the Existing Marine Fisheries Products and Investigation on the use of Chemicals or Pesticides in the Products			
68	Quality evaluation of fisheries products	Qualitative and shelf life study of the commercially important marine fisheries products.	Cox's Bazar
69	Determination of pesticides restudies in fish products	Investigation of pesticides and heavy metals in marine fisheries products	Cox's Bazar
Availability of Marine Pearl Producing Bivalves in South-Eastern Coast of Bangladesh and Development of Pearl Culture Technology			
70	Specimen collection and species identification	To investigate the major pearl producing bivalves in the south-east coast of Bangladesh	Cox's Bazar
71	Pond/cistern culture of pearl oyster	To identify the appropriate species for pearl culture by rearing in pond/cistern	Cox's Bazar

RIVERINE STATION, CHANDPUR

Impact of Environmental Factors on Abundance and Distribution of Important fishes in the River Meghna (Shatnol - Char Alexander)			
72	Observation of physicochemical water quality parameters of the river Meghna	To study the environmental factors in different season;	Chandpur
73	Observation of catch composition and catch per unit effort (CPUE) of different fishing gear used in the river Meghna	To study the abundance and distribution of important riverine fishes in different season	Chandpur
Development of Mass Seed Production Technique of *Pangasius pangasius*			
74	Identification of gonadal development, hormone dose & peak breeding season for induce spawning.	To optimize the induced breeding technique of *P. pangasius*	Chandpur
75	Observation of spawn survival rate and stocking density *P.pangasius*	To develop nursery rearing technique of P. *pangasius* depending on successful breeding	Chandpur
Biomonitoring of the rivers Padma, Meghna and Dakatia			
76	Observation of physical, chemical and biological parameters of water of the rivers Padma, Meghna and Dakatia	To study the Physical, chemical and biological parameters of the Riverine ecosystem of Padma, Meghna and Dakatia rivers	Chandpur
77	Occurrence of heavy metal in Padma, Meghna and Dakatia rivers	Assessment of heavy metal accumulation in soil, water and fishes of the aforesaid rivers	Chandpur

Sl No.	Research Title	Objective(s)	Location
Investigation of Tilapia (*O. niloticus*) Disease in Cage and other Fish Culture Systems and Control Strategies			
78	50 fish were captured and examined with naked eye. Ten affected fish were carried to the laboratory for further pathological investigation. Preserved in 10% buffered formalin for histopathological studies.	To identify the causative agent (s) associated with disease outbreaks	Chandpur, Munshigang, Laxmipur, Mymensingh
79	Primary diagnostic tests were done in BFRI laboratory which suggested the bacteria as *Streptoccus spp*.	To identify the causative agent (s) associated with disease outbreak	Chandpur, Munshigang, Laxmipur, Mymensingh
80	For further authentication of the causative agent (pathogen); Spleen, kidney and brain samples from affected fish were preserved in 80% ethanol and sent to MSD Animal Health Laboratory, Singapore. MSD confirmed the pathogen as *Streptococcus agalactiae* using molecular technique.	To identify the causative agent (s) associated with disease outbreaks	Chandpur, Munshigang, Laxmipur, Mymensingh
Jatka Conservation, Alternate Income Generation for Jatka Fishers and Research (BFRI-Part)			
81	Observation of water quality parameters in the Meghna River	To conduct broad based research on biology and environment aspects of hilsa fisheries both in the riverine and coastal ecosystems	Barisal Bhola Chittagong Chandpur Cox's Bazar Lakshmipur Patuakhali
82	Observation of fecundity and maturity of Hilsa in the spawning season	To conduct broad based research on biology and environment aspects of hilsa fisheries both in the riverine and coastal ecosystems	Barisal Bhola Chittagong Chandpur Cox's Bazar Lakshmipur Patuakhali
83	Observation of sex ratio of Hilsa in the spawning season	To conduct broad based research on biology and environment aspects of hilsa fisheries both in the riverine and coastal ecosystems	Chandpur Bhola Patuakhali

Sl No.	Research Title	Objective(s)	Location
84	Collection of CPUE data for identification of nursery and breeding ground of Hilsa	Identification of nursery and breeding grounds of hilsa and the changes occurred	Barisal (Hizla& Kaliganj)

RIVERINE SUB-STATION, RANGAMATI

85	Present status of limnology and natural breeding ground of lake kaptai	• To identify the specific spawning locations through collecting eggs/spawn • To provides scope for management decisions of lake ecosystem	Rangamati
86	Cage culture of monosex tilapia, Thai sharpunti and Thai koi in Kaptai lake	• Fine tuning of cage culture of Monosex Tilapia in Kaptai Lake • Findings transferred to the extension agencies	Rangamati
87	Refinement of Creek's Aquaculture Technology of Kaptai Lake	• To refine culture technology for sustainable fish production in creeks • To identify problems regarding fish culture in creeks with their solution • Demonstration of this technology	Rangamati

RIVERINE SUB-STATION, KHEPUPARA, PATUANHAL

Carp Brood Development and Growth Performance Evaluation of BFRI Produced Fingerling and Local Fingerlings			
88	Production and distribution of quality carp brood and spawn	To produce quality carp seed at RSS, Khepupara hatchery from BFRI reared brood.	Khepupara, Patuakhali
89	Evaluation of the growth performance of BFRI produced improved fingerlings with local fingerlings at farmer's pond	To compare the growth performance of carp by using BFRI produced fingerlings and local fingerlings at farmer's level	Khepupara, Patuakhali
90	Adoption of backyard prawn hatchery.	To produce of quality prawn seeds	Khepupara, Patuakhali

SHRIMP RESEARCH STATION, BAGERHAT

Development of Cost Effective Quality Feed Using Locally Available Feed Ingredients for Black Tiger Shrimp (*Penaeusmonodon*)			
91	Development of grow out feed for Shrimp (*Penaeous monodon*)	To find out Growth, Survival and Production of Shrimp using cost effective formulated feed by locally available ingredients	Research Pond, Shrimp Research Station.
Bioaccumulation of Hazardous Chemicals in Shrimp Farming System of Bangladesh			
92	Bioaccumulation of Hazardous Pesticides in Shrimp Farming System of Bangladesh	To observe the presence of pesticides residues and its quantity used in rice-prawn/shrimp farming system	Fultola, Dumuria upazila of Khulna and Fakirhat, Mollarhat, Sadar & Kochua upazila of Bagerhat

Sl No.	Research Title	Objective(s)	Location
93	Bioaccumulation of Hazardous Chemicals in Shrimp Farming System of Bangladesh	To observe the presence of hazardous chemicals source identification of these chemicals	Fultola, Dumuria upazila of Khulna and Fakirhat, Mollarhat, Sadar & Kochua upazila of Bagerhat
Investigation into shrimp/prawn diseases and their control strategies			
94	Investigation of emerging diseases	To identify the causative agent/s responsible for shrimp mortality	Fakirhat, Mongla, Bagerhat Sadar & Kochua upazila of Bagerha
95	Continuous trail and fine tuning of the hatchery protocol modified in the year of 2013-14	To overcome the mass larval mortality issue in the prawn hatcheries	Shrimp Research Station Prawn Hatchery.
96	Brood Development (following the early brood development technology, developed by BS Paikgasa) from the PL produced in 2013-14 and bring into production cycle	To observe the breeding performance and larval growth of the brood came from the survived PL from the Shrimp Research Station Prawn Hatchery in 2013-14	Research Pond, Shrimp Research Station
97	Assessment of bacterial resistance at different doses of active chlorine.	To observe the bacterial resistance to different disinfectants, especially in bleaching prior to be used in the larval rearing tanks in the prawn hatcheries	Shrimp Research Station Prawn Hatchery
98	Survey of the running hatcheries	To observe the management practices, sanitation and hygiene and source of physical/chemical/biological contaminants in order to overcome the existing problem of PL production	Narail Galda Hatchery Rupa Golda Hatchery Khanjahan Ali Golda Hatchery BRAC Galda Hatchery

BANGLADESH LIVESTCK RESEARCH INSTITUTE

BANGLADESH LIVESTOCK RESEARCH INSTITUTE

Sl No.	Research Title	Objective(s)	Location
Nutrition, Feeds & Feeding Bio-technology			
1	Digestibility trial, economic feasibility and patenting of BLRI developed vitamin mineral premix for poultry	• To determine the effect of VMP on growth performance of broiler chicken • To know meat yield traits and internal organ development of broilers	BLRI, Savar, Dhaka.
2	Detection of heavy metals in poultry feed, meat and eggs	• Identification of heavy metals (Cr, Pb & As) in poultry feed, meat and eggs • Comparing the existing levels of heavy metals with Maximum Permitted Concentration (MPC)	BLRI, Savar, Dhaka.
3	Study on improving feed efficiency of Pabna and RCC bulls	• To evaluate intake, digestibility and growth performances of local growing bulls fed Moringa plant fodder or Australian Sweet Jumbo alone keeping Maize silage as control. • To rank the available roughages	BLRI, Savar, Dhaka.
4	Feeding effects of increasing concentrate levels with different quality silages on beef production performance of native growing bulls	• To quantify optimum concentrate level for supplementation with the silages of different nutritional qualities • To harvest maximum growth performances of local growing bulls	BLRI, Savar, Dhaka.
5	Biometrical ranking of available fodder crops	Development of biometrical tool to rank fodder crops in terms of • efficiency of biomass production • efficiency of animal production • efficiency of energy loss reduction as enteric methane in the rumen • efficiency of benefit to cost ratio	BLRI, Savar, Dhaka.
6	System modeling for food waste to feed (F to F) production	• To quantify food and vegetable waste (FVW) of different sources • To develop a cost effective collection & value addition system for manufacturing feed • To determine nutritional composition and its feeding impacts to ruminants	BLRI, Savar, Dhaka.
7	Development of feeding system and least-cost balanced ration with locally available feed ingredients for different selected regions	• Develop a complete software package for feeding indigenous buffaloes that is more farmers and extension worker friendly. • Give an idea to the farmer and extension workers for year round fodder production plan and budget	BLRI, Savar, Dhaka.
8	Development of effective lamb production system in Bangladesh	• To know the effects of different level of nutrition during late pregnancy to lactation on the performances of native Bengal ewes and their lambs • To find out optimum level of nutrition during pregnancy and lactation of Native Bengal Ewe	BLRI, Savar, Dhaka

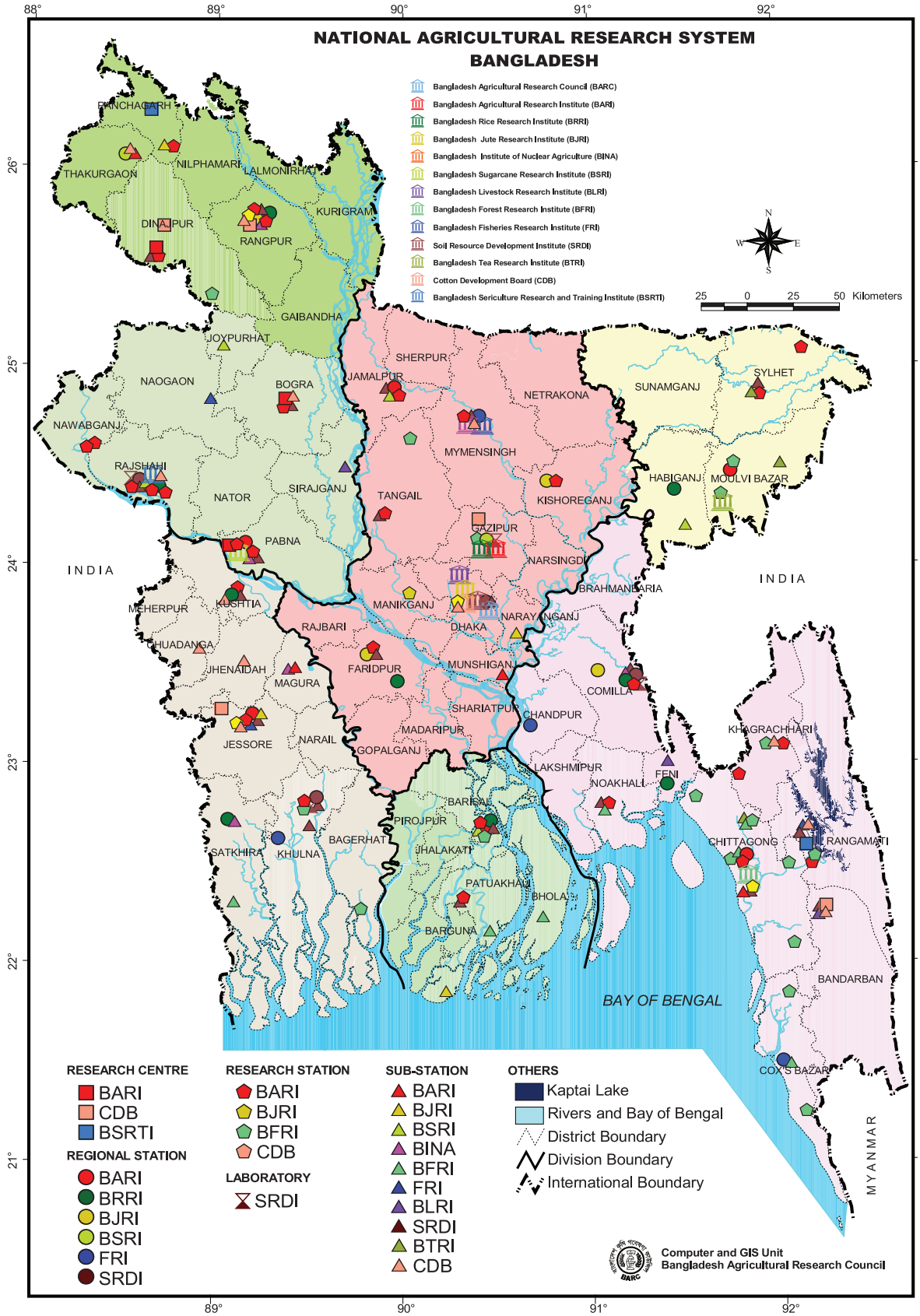
Sl No.	Research Title	Objective(s)	Location
9	Effect of replacement of conventional concentrate in a straw diet by Moringa foliage on lamb production performances	• To determine the effect of replacing concentrate mixture with dried moringa foliage on the performances of growing native sheep	BLRI, Savar, Dhaka
10	Collection, conservation, multiplication of high yielding fodder and evaluation their production performances under different agronomical practices	• Establish a year-round fodder cultivation plan in the research farm • Determine the bio-mass yield, chemical composition and nutritive values of fodders • Study the feeding effect of fodders on the performances of 8hilly goats • Produce high yielding fodder in large scale and distribute the cuttings/seeds of high yielding fodders to the farmers	BLRI, Savar, Dhaka Baghabari, Sirajgonj Naikhongchari, Bandarban
11	Development of cost effective crop residues based complete feed for Ruminates	• To know the feeding effect of silage and soybean straw based Total Mixed Ration (TMR) on the growth performances of growing calves. • To know the nutrient utilization and digestibility of TMR. • To recommend a suitable crop residue based TMR for growing calves for better growth.	BLRI, Savar, Dhaka.
12	Seasonal dynamics of feed resources utilization and management as influenced by different coastal and river basin areas of Bangladesh.	• To know the livestock status and feeding and management system in the river basin areas of Bangladesh. • To determine the seasonal scarcities and availability of feeds & fodder and their utilization in different river basin areas of Bangladesh. • To identify the problems related to the feeds & fodder availability faced by the farmers	Baghabari, Naikhongchari, Gaibandabdh, Lalmonirhat, Natore, Jamalpur. Tangail, Bogra, Chadpur, Mymensing, BLRI, Savar, Dhaka.
13	Study of Maringa plant fodder agronomy and its feeding to ruminants	• Germplasm conservation, screening & cost effective fodder agronomy development • Nutritional evaluation of Moringa plant fodder and feeding system development for cattle • Value addition technology development • Cost effective on farm production	BLRI, Savar, Dhaka.
Genetics, Breeding and Animal Biotechnology			
14	Maintenance of pure lines and performance of BLRI developed layer strains 1. Sub-title: Effects of strains and ambient temperature and their interaction on production performance, egg quality and physiological response of laying hens	• To determine the effect of strain and temperature on production performance, egg quality, serum Ca, P and Mg of laying hens • To investigate their effects on stress responses and antibody titer level of laying hens • To know the effect of strain on ovarian morphology and meat quality characteristics of spent hens	BLRI, Savar, Dhaka.

Sl No.	Research Title	Objective(s)	Location
15	Laying performances of BLRI layer-2 (Shorna) under farmers condition	• Adaptability and performance evaluation of Shorna under farmers' condition	BLRI, Savar, Dhaka, Barisal, Tangail, Jamalpur
16	Conservation and improvement of Quail	• To increase the 6th weeks body weight of BB-white and BB-black color mutations of Japanese quail through selective line breeding • To select parental birds (males and females) and breed them in an assortative design for the production of fourth generation birds	BLRI, Savar, Dhaka.
17	Conservation and improvement of Native Chicken	• To assess the performances of three indigenous chicken genotypes under intensive management, • To select parental birds (males and females) and breed them in an assortative design for the production of fourth generation birds, • To estimate realized responses to selection to improve three indigenous chicken genotypes under intensive management	BLRI, Savar, Dhaka.
18	Conservation, improvement and feeding system development of native duck genotype	• To conserve and improve the native duck genotypes • To compare the productive and reproductive performance of the genotypes at 1st generation To select the parents (duck and drake) for production of 2nd generation • To predict selection to response for egg production in native duck	BLRI, Savar, Dhaka, B.Baria
19	Selection of suitable exotic beef breed(s) and performance evaluation of their crosses with native cattle	• To procure the semen of Simmental, Charolais and Limousin • To inseminate BLRI Cattle Breed-1 (BCB-1) heifers & cows by the semen of Simmental, Charolais, Limousin or Brahman and production of crossbred progenies • To determine the genetic variations of BCB-1 using microsatellite markers	BLRI, Savar, Dhaka.
20	Study on candidate genes for milk production traits of Red Chittagong cattle	• To identify potential SNPs in candidate genes (*DGAT1*, *SCD* and *ABCG2*) for milk production traits in RCC • To develop a suitable DNA marker for marker assisted selection (MAS) of high yielding RCC	BLRI, Savar,Dhaka.
21	Production of calves through transfer of in vitro produced Red Chittagong Cattle embryos	• Production of F_1 (HF x Local) calf through transfer of IVF embryos • Transfer of OPU-IVP derived embryos to recipient at BLRI research farm	BLRI, Savar, Dhaka.
22	Study on performance of Boer and Jamunapari goat at BLRI	• Phenotypic characterization of Boer and Jamnapari goat • Study on the productive and reproductive performances of Boer and Jamnapari goat • Study on the adaptability of Boer goat at tropical environment	BLRI, Savar, Dhaka.

Sl No.	Research Title	Objective(s)	Location
23	Conservation of farm animal genetic resources (FnGR) hilly region at Naikhonchari	• To study the comparative performances of productivity of native sheep at research farm and community level in hilly area at Naikhonchari. • To alleviate poverty by improving productivity of sheep in community farm level at hilly areas • To establish sheep rearing system at hilly region	BLRI, Savar, Dhaka, Regional station, Naikhongchar, Bandarban
24	Conservation and Improvement of Hilly Chicken at Naikhongchari Regional Station	• Collection of hilly chicken and Naked Neck Hilly Chicken and their hatching eggs from hilly villages • Conservation, selection and multiplication of hilly chicken and Naked Neck Hilly Chicken for better performance	BLRI, Savar, Dhaka, Naikhongchar, Bandarban
25	Conservation and improvement of Munshiganj Cattle	• To develop pure Munshiganj cattle mini nucleus herd by screening from their habitat (2014-15). • Development of Munshiganj cattle rearing community at their habitat and exchange of proven semen/bull (2015-16) • Propagation, improvement and conservation of Munshiganj cattle through planned breeding and their performance study *in-situ*&*ex-situ* (2016-17)	BLRI, Savar, Dhaka, Munshiganj
26	Conservation and improvement of native buffalo through selection Activity: Study on estrous synchronization, conception rate and live birth weight of crossbred & native buffalo calves	• To adopt Estrus Synchronization protocol for indigenous buffalo • To evaluate ongoing Artificial Insemination efficiency in buffalo • To know the live birth weight of crossbred and indigenous buffalo	BLRI, Savar, Dhaka.
27	Development of salt tolerant Napier cultivar for coastal area through genetic engineering Sub-project: Screening of salt tolerance and genetic divergence of HYV fodder through hydroponic, tissues culture and RAPD marker	• Exploration of salt tolerant genes expression in important fodder species in Bangladesh • Molecular cloning and functional characterization of salt tolerant genes • Production of transgenic fodder crops exhibiting enhanced salt tolerance	BLRI Khulna Bagerhat Satkhira
Livestock & Poultry Disease and Health Biotechnology			
28	Avian Influenza Viruses Monitoring in Possible "Bridge" Species of Wild and Domestic Birds in Bangladesh	• Virological surveillance for AIVs in possible bridge species of wild and domestic birds in Bangladesh • To know the status of novel H7N9 virus in Bangladesh • Isolation and molecular characterization of AIVs from some selected vaccinated farm which have undergone further significant genetic evolution with the advent of vaccination • Sequencing and phylogenetic analysis of HPAI isolates from field outbreaks	BLRI, Savar, Dhaka.

Sl No.	Research Title	Objective(s)	Location
29	Prevalence of Salmonella spp. In poultry and poultry products in Bangladesh.	Isolation and identification of *Salmonella* spp from poultry and poultry products of different areas of Savar Upazila	BLRI, Savar, Dhaka.
30	Development of biologics for the diagnosis of Peste des Petits Ruminants (PPR)	• Development of Polyclonal and monoclonal antibody based local iELISA and cELISA kit for the early detection of PPRV antigen and assessing antibodies in field level sample and pre and post vaccination sero-monitoring. • To enhance the technical capacity of the SARRC regional leading diagnosis laboratory for PPR • Reduce dependency on imported kits and safe foreign currency • Supporting the national laboratory capacity to diagnose and analyze samples collected during surveillance, sero-monitoring exercise and routine diagnosis	BLRI, Savar, Dhaka.
31	A pilot project on Peste des Petits Ruminants (PPR) control in selected areas of Bangladesh	• Determination of goat and sheep population in the selected areas • Conduct sero-surveillance and epidemiological studies of PPR • Awareness campaigns on PPR recognition, prevention and control • Undertake phased vaccination program and assessment of conferred immunity and vaccine efficacy	BLRI, Savar, Dhaka.
32	Establishment of health management package for native sheep of Bangladesh	• To determine the efficacy of herbal drugs against GI nematodes of sheep • To develop a treatment regimen against such parasites	BLRI, Savar, Dhaka.
33	Outbreak and Distribution of Foot and Mouth Disease Virus Serotypes in Bangladesh	• Molecular epidemiology of circulating FMDV in Bangladesh • Genotyping of different FMDV serotypes distribute in Bangladesh • VPI gene sequencing for phylogenetic analysis	BLRI, Savar, Dhaka.
Socio-economic Research Division/ Training, Planning and Technology Testing Division/Fodder Research and Development Project			
Socio-Economic and Farming System Research			
34	Establishment of suitable processing plant for small scale broiler farmers	• To renovation of poultry processing plant at PPRD division • To setup the processing equipment and processing of poultry birds • To conduct lab analysis for hygienic and safe poultry meat supply • To make packaging and branding of saleable poultry with labeling • To recycle slaughter waste reducing environment pollution	BLRI, Savar, Dhaka.

Sl No.	Research Title	Objective(s)	Location
35	Study on Live bird marketing around Savar Upazila	• To identify the actors involved in value chain and their functions, and estimate the value addition, marketing costs, margins of different market actors in live poultry marketing • To study spatial and seasonal price fluctuation of poultry • To examine public health impacts of live poultry markets, consumer preference towards poultry and suggest alternative policy guidelines	BLRI, Savar, Dhaka.
36	Impact of farmers training on adoption of BLRI developed technologies	• Assessment the impact of livestock technologies on production income and estimate the potential and actual production gap • Identification of the constraints to adoption and determine the causes circumscribing the sustainability of technologies at farm level • Determination of the profitability of technologies	BLRI, Savar, Dhaka, Rangpur, Khulna, Chittagong, Sirajgonj, Dinajpur
37	Evaluation of existing livestock and poultry polices and provide guidelines for development in Bangladesh	• Critical analysis of the existing livestock and poultry policies in Bangladesh • To know the views of different stakeholders in relation to livestock and poultry policies • To identify the gaps between existing policies and expectations from the perspective of stakeholders • To recommend the output of the study to the concerned policy makers of Government	BLRI, Savar, Dhaka, Seven Division of Bangladesh
38	Development of jute, native sheep wool and cotton blended yarns and fabrics	• To produce blended yarn and fabrics • To determine the physical properties of blended yarns and fabrics • Compare the blended properties with respective 100% cotton, jute and woolen properties. • To increase the diversified use of wool and cotton blended products with small entrepreneur	BLRI, Savar, Dhaka BJRI, Dhaka
39	Economic Evaluation of Buffalo Production in selected regions of Bangladesh	• To determine the socio-economic status of buffalo rearing farmers • To estimate the income from buffalo production • To determine the coefficients of income generated from buffalo production • To measure the use of relevant factors in buffalo production	BLRI, Savar, Dhaka BJRI, Dhaka
40	Development of community based fodder production model and demonstration fodder preservation technology in Haor areas of Bangladesh	• To know the effect of manure on Bio-mass yield and nutritive value of BLRI-Napier-3 fodder in haor areas • To know the feeding effect of dairy cows by supplying green fodder compared to existing feeding practices • To know the effect of land level on Biomass yield of BLRI-Napier-3 fodder	BLRI, Savar, Dhaka Sadar, Sunamgonj


NATIONAL AGRICULTURAL RESEARCH SYSTEM
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Bangladesh Agricultural Research Council (BARC)
Bangladesh Agricultural Research Institute (BARI)
Bangladesh Rice Research Institute (BRRI)
Bangladesh Jute Research Institute (BJRI)
Bangladesh Institute of Nuclear Agriculture (BINA)
Bangladesh Sugarcane Research Institute (BSRI)
Bangladesh Livestock Research Institute (BLRI)
Bangladesh Forest Research Institute (BFRI)
Bangladesh Fisheries Research Institute (FRI)
Soil Resource Development Institute (SRDI)
Bangladesh Tea Research Institute (BTRI)
Cotton Development Board (CDB)
Bangladesh Sericulture Research and Training Institute (BSRTI)
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NAWABGANJ
RAJSHAHI
NATOR
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